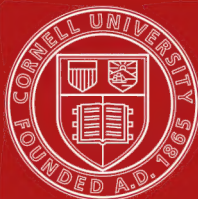


CORNELL UNIVERSITY LIBRARY



3 1924 052 376 047



Cornell University Library

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

<http://www.archive.org/details/cu31924052376047>



Chas. S. Gibson

Breeding and Care
of
RABBITS
for
EXHIBITION AND MARKET

By
CHARLES S. GIBSON
SECRETARY AND JUDGE OF THE NATIONAL
PET STOCK ASSOCIATION OF AMERICA.

Fifth Edition.

Illustrated.

PUBLISHED BY
CHARLES S. GIBSON
1045 West Warren Avenue Detroit, U. S. A.

SF
453
G44
5th ed.

E 6506

Copyright, 1918,
by
CHARLES S. GIBSON

THE GOODSPEED PRESS
CHICAGO

CONTENTS

PART I.

CHAPTER	PAGE
PREFACE	8
HOUSING AND HUTCHES.....	9
PROPER HANDLING OF A RABBITRY.....	25
STOCK SELECTION.....	27
BREEDING	31
SELECTION OF FOOD AND PROPER FEEDING....	41
SELLING AND SHIPPING.....	45
EXHIBITING	51

PART II.

Standards and Varieties.

STEEL GRAY FLEMISH GIANT.....	56
GRAY FLEMISH GIANT.....	66
AMERICAN SPOTTED GIANT	70
BLACK AND OTHER SOLID COLORED GIANTS..	74
NEW ZEALAND.....	76
BELGIAN HARE.....	86
BELGIAN GIANT.....	105
ANGORA	106
HIMALAYAN	117

CONTENTS (Continued)

ENGLISH SPOTTED.....	126
DUTCH	132
LOPS, ENGLISH AND FRENCH.....	140
BLACK AND TAN OR BLUE AND TAN.....	146
HAVANA	150
SILVERS—GRAY, BROWN AND FAWN.....	152
CHAMPAGNE D'ARGENT.....	154
IMPERIALS	159
GERMAN VIENNA.....	161
POLISH	162
JAPANESE	164

PART III.

CHAPTER	PAGE
FOOD VALUE OF THE RABBIT.....	167
TESTED RECIPES FOR COOKING AND SERVING THE RABBIT	173
THE FUR PROPOSITION.....	179
DISEASES AND REMEDIES.....	188
THAYER'S CHAPTER.....	198
MAINTENANCE OF UTILITY RABBITS... ..	200

ILLUSTRATIONS

PORTRAIT OF AUTHOR.....	<i>Facing Title Page</i>
OUTDOOR BARREL HUTCH	13
TABLE RABBIT HUTCHES.....	15
DR. BIRD'S RABBITRY.....	16 and 17
ENCLOSED RABBITRY	20
RABBITRY OF EDWARD STAHL.....	23
STEEL GRAY FLEMISH BUCK.....	24
AMERICAN SPOTTED GIANT DOE—"AMERICAN LILY"....	29
LOS ANGELES EXHIBIT AND CONEY FUR CLUB.....	30
SOUTHERN CALIFORNIA CONEY FUR CLUB.....	40
BLACK DUTCH BUCK.....	50
EXHIBITION SHIPPING CASE	52
STEEL GRAY FLEMISH GIANT DOES.....	58
REED STORM'S OUTDOOR RABBITRY.....	54
GILMOUR'S STEEL SENSATION.....	59
SPOTTED DOE	71
STEEL GRAY FLEMISH BUCK—"TOLEDO PRINCE".....	63
GRAY FLEMISH GIANT DOE—"1915 FRISCO BELLE".....	69
AMERICAN SPOTTED GIANT.....	71
AMERICAN GIANT BUCK—"SPOTTED WONDER".....	72
WHITE GIANT BUCK AND DOE.....	73
BLACK GIANT DOE "DINAH".....	75
NEW ZEALAND BUCK—"RED CONQUERER".....	78
TRIO—OWNED BY MR. MCKEE, LOS ANGELES.....	80
NEW ZEALAND BUCK—"RANGITERA".....	82
BELGIAN HARE DOE—"PANAMA GIRL".....	90
BELGIAN HARE DOE—"AMERICAN BEAUTY".....	92
ANGORA BUCK	108
HIMALAYANS	120
HIMALAYAN DOE—"CHICAGO GIRL".....	122
HIMALAYAN BUCK—"JACK"	124
BLACK ENGLISH BUCK.....	129
TRIO OF DUTCH.....	135
BLACK DUTCH BUCK.....	137
E. LOP SOOTY FAWN BUCK—FIRENZE PETER PAN.....	143
FRENCH LOP DOE—"JOHNSON'S WONDER".....	144
BLACK AND TAN BUCK.....	148
CHAMPAGNE D'ARGENT.....	154
SILVER GRAY BUCK.....	156
AMERICAN BLUE BUCK.....	161
ILLUSTRATED COMPARISON OF RABBIT AND POULTRY.....	171
FUR SET MADE BY MRS. SHERMAN.....	172
SUNLIGHT RABBITRY	180
FUR PIECES.....	181
ALLENDALE PRIDE	184
LOP EARED BLACK BUCK.....	186
FOUR-COMPARTMENT RABBIT HUTCH.....	200
LITTER RECORD.....	201
LOS ANGELES RABBIT EXCHANGE.....	202
YEARLY BALANCE SHEET.....	203
WEIGHT CHART.....	206
EXPENSE—INCOME CHART.....	205
HUTCH RECORD.....	207
RABBITRY OF HENRY REGEL.....	221
"DOC" SHORT'S RABBITRY.....	224

PREFACE.

Having discovered the need of an up-to-date book dealing with Rabbit Culture and Breeding, and having been requested by many fanciers to publish such a work, I have prepared this volume, which I sincerely believe will meet the growing demand and prove of real assistance to many a brother fancier. The novice will make many mistakes without a standard guide to instruct him in practical methods of care and handling of rabbits for profitable results.

If they will follow the instructions to the letter, I feel certain they will derive much benefit therefrom; in fact, I know many of the suggestions will be of service and great value to the beginner.

I am indebted to the great English magazine, "Fur and Feather," by that prince of fanciers, Mr. C. A. House, and also to the book by the English Judge and fancier, Mr. George A. Townsend, for many good points which I have tested and found to be correct. I also wish to thank our American Fanciers for their numberless good suggestions and for many of the photos and cuts appearing in the pages of this book.

With twenty-four years of experience breeding, exhibiting and judging rabbits, I feel I am in a position to assist the fancier and that is my object in preparing this book. If I am able to help some fancier who is discouraged and ready to quit the fancy, my work will not be in vain.

I have tried to take up every point connected with the fancy and some of the drawings of different rabbitries will show the novice where his mistakes are made at the beginning.

C. S. GIBSON.

Breeding and Care of Rabbits

Part I.

CHAPTER I.

HOUSING AND HUTCHES.

THIS subject is so great and important that a book could be written on it alone. In starting in the fancy the greatest drawback usually is the place to keep the rabbits. America is so large and has so many different states, each having a different climate, that it becomes necessary to house rabbits in different rabbitries and hutches in different localities.

In California, the open outdoor hutches with a roof about four to five feet above the top row of hutches will work fine, and in fact is really necessary in the entire southern part of California, and in nearly all of the northern part also. In the southern part of the state, many fanciers have rows of open self-cleaning hutches built under the shade of the trees. This method brings good results. The hutches run 5 feet long by 2 feet deep and 2 feet high. They also use sheds without ends or sides, just high roofs and open hutches. The stock does well in these hutches, but great care must be used in not keeping too many

together during hot weather. The rows of hutches open on sides and ends with a roof over the top, and single hutches in rows of one or two deep under the shade trees are the best for hot climates. Extra precaution is necessary to keep out rats. It will also be necessary to protect the fancy, colored varieties from the sun's rays, as they fade very quickly.

To fanciers breeding for market, I would suggest the small movable hutches, shown in the cuts under the name "Table Rabbit Hutches." They are supposed to be used by the fancier living on truck farms or large lots where grass is plentiful. These hutches are built from 5 to 10 feet long, 22 inches wide, and from 18 to 24 inches high, with a sloping roof made of tar paper, or any substance that will keep rain from soaking through. The roof should be on hinges so it can be lifted up. It has no floor but chicken wire, which is also placed around the sides and ends. In one end place a small platform about 4 inches high and 10 by 18 inches in size.

Housing.

Some fanciers like to build these hutches with curtains of oil cloth over one end and a small part of the sides. These curtains may be rolled up in good weather, but in case of storm they can be lowered and will protect the rabbits from a driving rain. The object of the chicken wire on the bottom is to make them self-cleaning, and to permit the rabbits to make their own living. You simply move them from one place to another, and the rabbits eat the grass through

the wire flooring. They are not for fall or winter in cold climates. They can be used as regular rabbit farms and some fanciers have actually let them go for weeks at a time without any feed outside of what they eat through the wire on the bottom. Fancy stock can also be raised in them. Dogs and rabbit thieves must again be watched.

Another very simple little hutch is the "Knill Hutch" thought out by a Past President of the Na-



OUTDOOR BARREL HUTCH
Designed by Roy Knill, Hollywood, Illinois

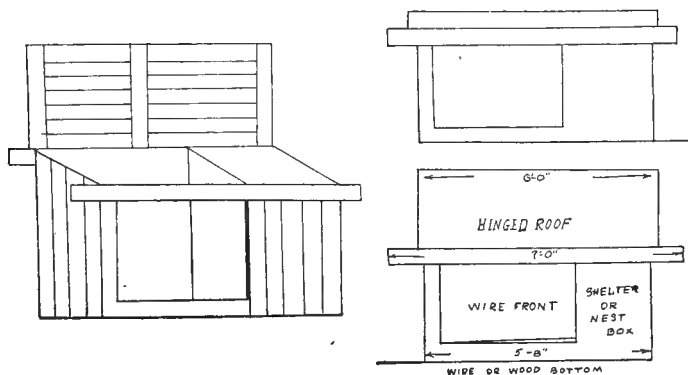
tional Association. In the cut of this hutch you will notice an ordinary clean oil barrel with the bung hole turned down to the ground and raised above the ground about six inches. Fine poultry mesh or hardware cloth should be placed over the bung hole on the inside of the barrel, then underneath the barrel and near the end of it, fine poultry mesh should be placed and nailed solid and up to the top of the barrel, then

extending out from the sides and end to a distance of about 6 to 10 feet, depending upon the size of the run-way you desire. You can have a roof over the run-way. Make the sides, one end and bottom of open mesh, or a floor of matched lumber placed on a slant can be used. These hutches can also be made movable like the others but either kind should be placed where it is not damp.

High, dry places are most suitable for the small open hutches and the barrel hutches. The barrel hutch will safely house rabbits in the coldest weather. The end of the barrel extending into the run-way should have part of its head knocked out and a piece of heavy cloth (rubber will be best) **hung over the** opening. This should extend to the bottom of the barrel, but should not be tacked at the bottom, but hang loosely, so that rabbits can go out and in. In the winter months, the run and the barrel should be kept supplied with nice clean straw for them to burrow in. The barrel is positively draught proof, proof against dampness and cold as well as wind and rain proof.

Nest boxes can be placed in one end and a small board placed across the bottom to keep the youngsters in. It will also be necessary to place fine poultry mesh or cloth from the board up the sides, with a space left between the top of the board and the bottom of the cloth or wire for the doe to jump over **when** she wants to come out. A small shelf could also be built on one side for the doe to rest on. If these little hutches can be placed in the shade so much the better for the stock.

TABLE RABBIT HUTCHES

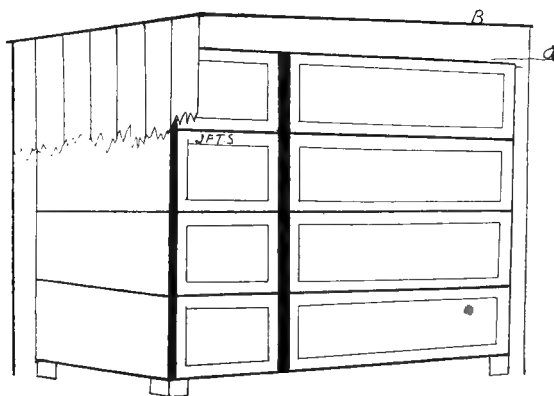


These hutches are used principally for breeding rabbits for the market, but may also be used for all rabbits that do not fade easily when exposed to the rays of the sun. They can be made any size, and with wood or poultry netting bottoms. When poultry netting is used for the bottoms, they can be moved from one place to another, and are self cleaning. Rabbits housed in these hutches will require very little feeding in summer outside of what they eat through the poultry netting. They are very popular with the working man and the truck farmer who is raising rabbits for the market. The illustration shows the simple form of construction.

Outdoor Rabbitry.

The rabbitry shown in the cut is without doubt the best all around rabbitry that can be built. The

hutches should first be built about 12 to 14 inches from the ground. They should be 10 feet long, 24 inches wide by 24 inches high and covered on both sides with fine poultry mesh. One end of the hutch should be built solid 22 inches square and absolutely free from draughts. In order to make them draught proof it will be necessary to make the outside walls, ends and roof of matched lumber, then leave a space



OUTDOOR RABBITRY

With shed roof about four feet above roof of upper row of hutches, the back and front to have slides for closed or open hutches

of 3 inches and make the inside of matched lumber also. Fill the 3 inch space with sawdust. This will make a warm house in winter and a cool one in summer. In winter the end should be kept filled with straw for the rabbits to burrow in.

Burlap or canvas dropped over the front on cold

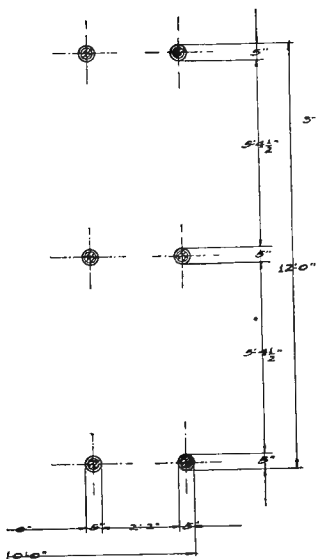
nights and during stormy weather will add to the comfort of the rabbits.

This rabbitry can also be made double, as shown on page 22 and 23. Experiment with this rabbitry proves rabbits can be raised in the most severe weather.

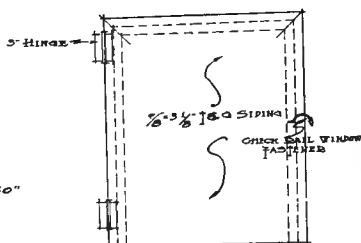
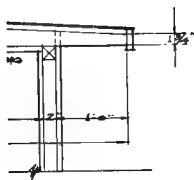
These rabbitries should be built under shade trees, as it will afford protection from the severe heat and cold. Adjustable blinds can also be placed in front of the hutch as a protection from the sun.

The holes going into the hutch or run-way, should be about three inches from the floor as this will prevent the youngsters from rolling out when they are small. The roof of the top row of hutches should be double, and over all should be built a large shed some three or four feet above, and extending about four feet beyond the roof of the hutches. These hutches and sheds can be made very comfortable and stock will do fine in them during the most severe weather. Fancy rabbits like Belgians, Black and Tans and Himalayans will fade very easily from the direct rays of the sun, hence must be protected as explained above. The floors of these hutches should be slanted from the back to the front, and one end should be kept filled with fresh straw in cold weather.

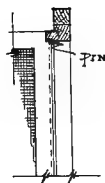
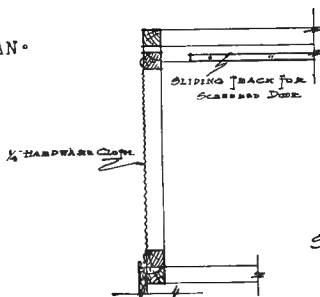
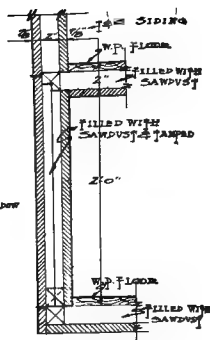
An opening of sufficient size should be left to permit the rabbit to pass out and in. The bottom of each hutch should be heavily floored and have the proper slant to carry the urine away. Small drainage troughs in front are very convenient but not necessary. Plenty of fresh straw and



• FOUNDATION PLAN •
SCALE $\frac{1}{2}$ " = 1'-0"



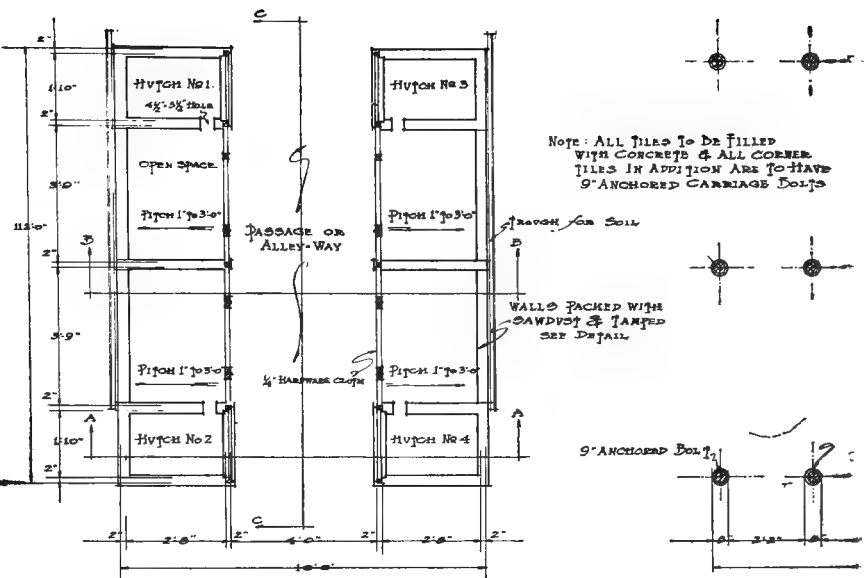
DETAIL OF HUTCH DOOR
SCALE $\frac{1}{2}$ " = 1'-0"



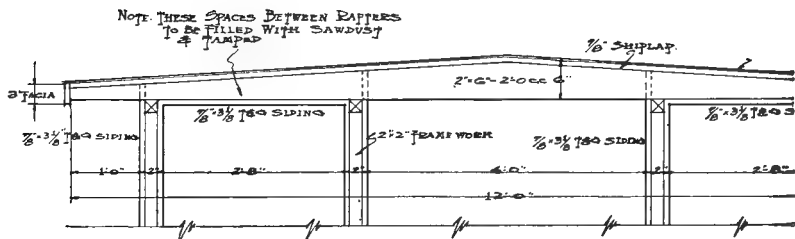
SECTION THRU CORD DOOR
SCALE $\frac{1}{2}$ " = 1'-0"

PLAN OF RABBITRY OWNED BY DR. BIRD & SON, PONTIAC, MICH.

The above plans are practical for severe winter weather. During the winter of 1917-18, with the thermometer 30 degrees below zero, rabbits were raised successfully in this rabbitry, notwithstanding inclement weather. Canvas was dropped over each end of alley.



• HOUSE PLAN •
SCALE $\frac{1}{2}$ " = 1'-0"



• DETAIL OF ROOF RAFTER & STUDDING •
SCALE 1" = 1'-0"

sawdust both winter and summer is the ideal way of keeping the stock clean and healthy. A roof should be built over the top row of hutches, and the other end of the hutches should also be boarded up with matched lumber. The house end of the hutch should be arranged so one side can be opened the entire length of the hutch. The back part of the run-way can have, part way, a rising back built just outside of the wire meshing. This can be raised in the summer and lowered in the winter. Twelve inches of the bottom part of the back should be made so it can be turned up in order to clean the hutch, provided a self-cleaning one is not used. A shed should be built over the hutches with the roof 4 or 5 feet above the top row, and extending out over them 4 or 5 feet, as shown in the cut.

This is without doubt the best system of hutching that can be used for stock in America. It is expensive, but the amount of stock saved in a year will more than pay for the extra expense of building the hutches. I wish to impress it firmly upon the mind of every fancier in the country that proper housing is the first and most important point of rabbit breeding and unless the proper rabbitry and hutches are built at the start, there will be no profit. Rabbits must be properly housed if they are to thrive. If they are not properly housed, sickly rabbits full of snuffles will result. A good plan is to place in one corner of the hutch a small box about 18 inches square and 3 inches deep, filled with sawdust. The majority of rabbits will quickly learn to leave their droppings

in this box and this makes it easy to clean the hutch and keep it clean at all times.

Hay racks should be built in each hutch. These can be made of the common wire that comes on the hay, but copper wire is the best. They should be so built that small rabbits cannot get into them and become caught.

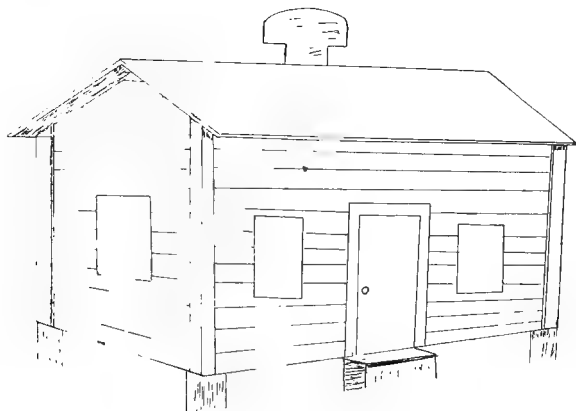
Another important item is the location of drinking and feed dishes. These should be placed so they cannot be overturned, and yet always clean. The finest system I have seen for this has spaces grooved out of the partitions, and in these the drink and feed dishes are placed, about 2 inches above the floor. They cannot be upset by the rabbits and are out of the way when the hutches are cleaned. The food and water are always clean.

In building a hutch or rabbitry, it will be necessary to use caution in regard to housing Himalayans, Tans, Silvers, Belgians, etc., as their color will fade easily if the rays of the sun strike them. For these varieties, the outdoor open hutches should have blinds arranged in such a manner that the hutch can be darkened at certain times to protect the rabbits from the sun's rays.

Keep the hutches clean, even if it is necessary to clean them every day. After cleaning use a good germicide.

Enclosed Rabbitry.

So far this chapter has been devoted to outdoor hutches and I will now describe one indoor rabbitry. The cut gives a very fair idea of the correct way to build one. The size will depend upon the number of rabbits to be housed. Never crowd too many under one roof, for when that is done the rabbits will soon become sickly and the end is in sight for the fancier who persists in overcrowding.



ENCLOSED RABBITRY

With either wood or galvanized ventilator at top.

Brick or concrete makes the best inside rabbitry, and to make it doubly comfortable, it should be sided up on the inside, with a space of 3 inches between the siding and the wall. This space is to be filled with sawdust, or if it is impossible to make the rabbitry

in this manner, place a layer of good heavy paper between the wall and siding. The roof is also an important part. It should be at least from 4 to 5 feet above the top of the upper row of hutches. The inside can be made of matched lumber, next a layer of felt or roof paper, then a good metallic roof on the outside. It is necessary to make the roof in this manner, for in a rabbitry with a poor roof, in cold weather, the frost will hang from all parts of the ceiling. The only way to keep out dampness and disease is to make double sides and roof. On the outside of the roof at the top and central part, a small cupola with shutters should be built, like the one in the cut. Never build hutches on both sides of your rabbitry. The most convenient and successful rabbitry is made with a door in the center of the side, which should face south if possible. The hutches should then be built on each end and down one side. They should be built about 6 inches from the floor and 6 inches from the sides or ends of the building, which will give a free circulation of air.

One of the most important things is to make a small case for medicine, another for your stud book, and a small grooming table that can be dropped from the wall.

The hutches should be large and roomy, 4 foot hutches by 24 inches high and 24 inches deep will do; but those 5 feet in length are better, especially for the does with young. Nesting boxes can be made out of common empty wooden boxes about 22 inches square and 14 inches high, or they can be built in the

hutches at either end and in even rows, which look better. In case the latter method is used, it will be necessary to build a small shelf on one side or end for the doe to rest on, and get away from the youngsters.

A rabbitry 12 by 15 or 20 feet makes a very good sized one and should be made high enough to have the eaves of the roof clear the top hutches by at least three feet, and four would be better. The rabbitry should have two doors; the outside, or winter door, and on the inside, a summer door made of fine weave wire mesh.

The windows should be left open in good weather, and in certain localities cheese cloth doubled or burlap hanging over them will afford ample protection from the cold winds. The door should always be built in the center, if possible to do so. It should be a double door, the outside one being so made that when closed it will be proof against any draughts of air. The inside door may be made of wire screen or cheese cloth doubled. It should be so built as to guard against dogs. Some fanciers make the inside door of large heavy strips of hard lumber, a few inches apart, with screening on the inside. This will keep out dogs and at the same time let in plenty of fresh air. A few rabbits under one roof will do much better than a large number.

Never use artificial heat in a rabbitry. If it is so damp that artificial heat is needed, to keep it dry, it would be better to build a new rabbitry, for rabbits will never thrive in a damp building, or where artificial heat is used.



RABBITRY OF EDWARD STAHL
Holmes Park, Missouri.



STEEL GRAY BUCK

Sixteen pounds. Took first prize at Los Angeles, Calif., January, 1918.
Owned by Wilson Bros. of Los Angeles.

CHAPTER II.

PROPER HANDLING OF A RABBITRY.

THIS IS another important subject which is too often overlooked by the average fancier. Adopt a system and be sure that your system is the best, then adhere strictly to it. Have a stud book and hutch tags to correspond with it. Keep a close and accurate record of what each doe and buck are doing. Keep account also of every cent received and spent, and at the end of each month strike a balance and you will then know if you are doing a satisfactory business. This will enable you to tell what certain does and bucks are doing and which does are doing better with certain bucks. It will then be quite easy to shift the breeding until the proper results are obtained. Many successful breeders owe their greatest success to this method of shifting does and bucks until the proper mating is found.

In making out registration and pedigree blanks, keep carbon copies. In case the original is lost you are then in a position to furnish another copy.

A few things to have handy and remember:

Keep a barrel of sawdust and use it freely.

Have plenty of germicide and other remedies on hand at all times.

Have the hutches cleaned three times each week.

Take care of your stock yourself. The idea of leaving it for George to do does not work well with rabbits.

Never enter the rabbitry suddenly. This results in scaring the rabbits.

Never permit children to maul or handle the rabbits by the ears.

Look your rabbits over twice a week and isolate sickly specimens and those afflicted with colds.

Admit plenty of fresh air to the rabbitry but keep it absolutely free from draughts.

In handling your stock, place one hand underneath the hind quarters and lift the rabbit with the other, holding by the loose skin of the neck directly back of the ears. The weight should rest on the hand under the hind quarters.

Study each individual rabbit and learn their likes and dislikes.

Be honest and square in all your dealings and you may demand the same in return.

CHAPTER III.

STOCK SELECTION.

THIS IS another important subject and one that is frequently overlooked by the average fancier just starting in. A great many make the fatal mistake of buying the cheapest stock possible, saying, "I will start in with something cheap and if I make a success with them, I will then get the best." Nothing done or said could be more foolish or farther from the real object of every fancier. Time lost in experimenting with inferior stock, to say nothing of the money lost in buying the stock, proves so discouraging at times that it loses more promising fanciers to the fancy than any other one cause.

The success of rabbit raising depends largely upon the time and study that are given the subject.

Before purchasing, it will be necessary to study and decide carefully with which variety you will start. One or two varieties well taken care of are worth a dozen poorly taken care of.

First find out the variety of stock best adapted to your surroundings. Don't jump at the first one you see because some fancier has made a success with it, but look around and see if you have the necessary space and the time required to raise that certain variety in the proper manner. The chances are, you

are about to tackle one of the hardest breeds to raise when you should start with the easiest one. Be sure you have the right stock and that which appeals to you, then you are ready to go ahead. Remember it is the correct start that marks your success in the fancy.

Having decided upon the variety, you are ready to buy.

Do not be caught by flashy advertisements offering \$10.00 stock for \$2.00. These ads catch more novices than any others appearing in the papers.

The proper course to pursue is to find a reliable breeder of registered stock, and pay the price if the best stock is desired. Insist upon proper ear markings and the pedigree papers to correspond. Do not take any other stock, for remember, registered stock is a guarantee of quality.

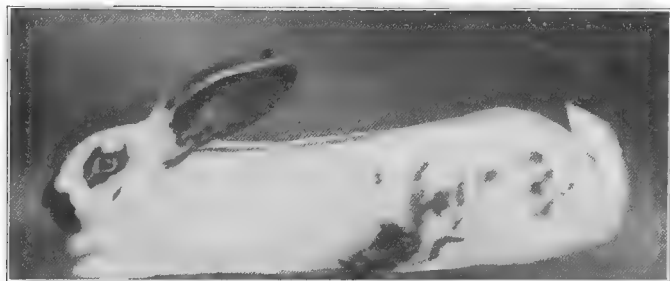
If you are able to purchase but one specimen for the start, I would advise purchasing a good doe, then breed to a good registered buck.

Do not select old stock. Better wait until there is enough money to buy stock in its prime, and if possible buy from a long established strain that is known to be good.

Have an experienced breeder go with you to aid in the selection, as his judgment and advice will be of much value. The novice must rely upon the word of the breeder, but the experienced fancier can tell if the stock is up to the description.

Examine the stock carefully for crooked tails, deformed feet, dropped ears and white toes, also white patches of hair on the body, feet or under the chin.

Should you be obliged to order by mail without a personal inspection, examine the stock at the express office before accepting. Look at the inside of the front feet first and if the hair appears wet and all ruffled up, send them back at once, unless they have come an exceptionally long distance, then feed and water them and send a card saying they will be returned on a certain day and that you expect the money to be returned by the first mail.



AMERICAN CHECKERED GIANT DOE, "AMERICAN LILY"

Owner, D. C. Short, Columbus, Ohio. Weight, 17½ pounds.



Los Angeles Rabbit and Pet Stock Show, January 9-16, 1918.
Seated: Andrew Wilson, Sec'y; C. S. Gibson, Judge;
C. E. Sherman, Supt. Standing, with duster,
Lewis Salisbury, Ass't Judge.

CHAPTER IV.

BREEDING.

THIS SUBJECT could easily fill a book, and is of utmost importance. Each experienced breeder thinks his method is the correct one, hence we find many methods used in breeding. We find a few basic ideas that have been developed and adopted by the greatest breeders the world has known, and it is these ideas that have made rabbit breeding a pleasure as well as a profitable industry.

The most important thing to consider in breeding rabbits is nature. The nearer we can follow nature the greater will be our success.

If you have only does and no good buck, find the best stud buck possible and pay the service fee. It will be money well spent. There is plenty of good registered stock now and it is an easy matter to use a good registered buck at reasonable cost. Many American fanciers are away back on this point and until they can be educated to see the great advantage of using good stud bucks the progress of the fancy is sure to be slow. As an illustration of this fact, permit me to again cite the famous Flemish buck on the coast which produced the winners all over the coast, and stock from the blood of this buck is going all over America. You are making a mistake in not

using good stud bucks that are registered and that have been proven to be good sires. The prize winners, however, do not always prove to be the best sires, but very often poor ones.

The next important point is the healthy condition of the stock. If a buck or doe shows signs of being sickly or unhealthy, refuse to breed them, for it will take many breedings to breed out of stock the sick, diseased blood which has been bred into it at an unguarded moment. Examine your bucks and does often for vent disease, and when strange does are sent to you, give them a thorough examination for the same trouble, as a buck often gets vent disease from does that have been shipped in for service. Too much care cannot be used in keeping your stock clean and healthy. If they should have vent disease, use vent ointment or twenty-five per cent Argyrol.

Handle your rabbits every time you go past them, looking them over as often as you possibly can, for diseases will come in a short time and tomorrow may be too late to save your most valuable specimen.

There is one very important point that must be observed with every breed of rabbits and that is to breed them when their coats are in perfect condition. Failure to observe this most important point will result in rough coated youngsters and in Flemish, many times Angora-coated Flemish will make their appearance and the breeder wonders what is wrong with his stock.

If the sire is from poor stock, this could also result, but in many cases rough coated rabbits are caused from breeding stock that have poor coats. Better

wait until their coats are entirely free from moult, then breed, and nice, smooth coated youngsters will be the result. There are many cases on record of Angora-coated specimens making their appearance in the third and fourth generations which could be traced back to poor coats in the beginning. Perfect coats are necessary with all breeds of rabbits if good coated youngsters are to be expected from the mating.

The question of the proper age at which to breed comes next. Do not breed your stock too young, but wait until it is fully matured, thus ensuring the best results.

It is quite generally conceded that does of any variety should not be bred under 7 months, and with Flemish Giants 12 months is the most desirable age for producing large stock, provided the doe has not been overfed, which might prevent her from producing youngsters. The average breeder can not seem to wait until the Flemish are fully developed before breeding them, so one finds any amount of Flemish being bred at 7 months of age and thereby stunted for life.

Bucks of all varieties, with the exception of the Flemish, should not be bred under 7 months of age. There are exceptions as in the case of Belgians, when extra fine bones are to be produced. In such cases a buck 5 months old with extra fine bones, provided it has the color, should be used. Dutch bucks are often used at 5 months to keep down the size and also to keep the bucks from growing too large.

Never breed old stock. If it is absolutely necessary to do so, breed a young buck to an old doe or vice

versa. As a rule, rabbits over three years of age will produce inferior stock. Some specimens have been known to produce offspring at five and six years of age but such cases are rare and the resulting stock seldom amounts to much. Of course there are exceptions but the good stock you can produce from bucks or does after they are three years old will be very scarce.

Inbreeding should rarely, if ever, be indulged in when size and shape are important but when color markings are extremely important, it is probably **necessary to inbreed the stock**. Inbreeding should be carried out in the following manner: Father and daughter and son and mother. Brother and sister should never be mated except in case of necessity. If bucks refuse to serve the doe give them one fresh egg beaten up with a half pint of new milk and a pinch of sugar. This is enough for three bucks and will produce good results.

The number of litters in a year is another interesting subject and depends largely upon the locality and the object of the breeding. Some fanciers have certain shows in mind when they breed their stock and naturally breed for those shows; others breed any old way and trust to luck, which is very fickle in the rabbit game. Three litters a year is enough and will result in much better stock, and longer lives for the does. Of course we have many successful breeders who are getting four litters each year from their does who experience little or no bad results from that number of litters, but the greatest and most widely

known breeders are only expecting three litters each year.

The next question that arises is, at what time of the year should one breed his stock? If all the country were like California, Florida or other warm states, or if the states were all like the middle west, western and eastern states, it would be an easy matter to designate certain months for breeding as a guide for all. First take the states that experience severe winters. The proper thing to do is to follow just as near Nature's footsteps as possible and that means young rabbits running around with the warm spring sun to help develop them, when all spring vegetables are easy to procure for feed. February or March is the proper time for the first breeding, and the latter part of August or September for the next. Then let them rest the remainder of the year. In warm climates the cold rainy season is nearly as hard on rabbits as the sudden changes and severe winters experienced in cold climates.

Another point to note is that the first youngsters of wild rabbits in sections having mild winters, make their appearance about the same time that our wild rabbits show up in the east, so it would seem a pretty good plan to use the same system in all parts of the country. Of course, in the warmer sections one can probably produce three litters easier than in a more rigorous climate, but the February or March breeding rule will hold in all sections. Trying to bring youngsters through cold, severe winters, usually results in stunted stock that will prove of little value to anyone.

Summary.

Remember the most important point in breeding stock is to have it in a perfectly healthy condition, as any disease or deformity will be bred into the youngsters; and never breed bucks or does with coats showing the least particle of moult. Do away with the old stock as fast as possible, for it is of little value for breeding after about three years of age.

The correct method is to breed the finest stock from the best strains in the country, using every precaution that the stock be free from moult and disease and that it be young and in the very pink of condition. Such breeding is sure to bring good results.

Mating.

Enlargements and inflamed appearance of the external organs are signs of the doe being ready to serve, and very often she will appear nervous and restless.

If you experience trouble in breeding your doe, try her again on another day, for forced matings are rarely successful. If the doe continues to refuse to mate see if she is too fat, for a mistake often made is that of having the stock too fat at breeding time. It is better that the doe be a trifle thin when bred, and crowded in later feeding. If she continues to refuse the buck, leave her over night in a hutch that has previously been occupied by a buck and feed her soaked peas. This will help to produce the desired results. Never permit the buck to be placed in the hutch of the doe but put the doe in the buck's hutch and never permit the buck to pull or bite the doe.

About five days after the mating, try them again, and if the doe refuses, it is a pretty sure sign that she will kindle. In some cases the doe will accept the buck up to within a few days of the time she is due to kindle.

If your doe repeatedly fails to breed, try another buck. Repeat this a couple of times and if she still fails, dispose of her.

Three does a week is enough for bucks during the heavy season and twice is enough to each doe.

Some fanciers breed the same bucks to the same does each time and never know what could be accomplished by a different breeding. Watch your stud book and try a different doe to a different buck at each breeding and in this way it will be very easy to see which buck and doe produce the best stock.

Kindling.

Thirty days is the time for kindling, but it will run over or under in some cases.

A few days before the doe is due to kindle, clean out her hutch and give her plenty of clean timothy hay or straw on top of sawdust, then feed bread and milk each day and also green foods. See that she has everything quiet, and is not handled during the last week. Bucks should never be placed in hutches next to does due to kindle, and nothing should worry the doe in any way as they need to be kept quiet.

The day she is due to kindle, see that she has an extra feed of green food and a nice cool fresh dish of water before her.

When winter breeding in extremely cold climates, place a hot water bottle wrapped in flannel beside the doe the night she is due to kindle, and keep it there until the youngsters are two days old.

If a doe throws her youngsters all over the hutch and it happens to be cold weather, wrap them in warm flannel as quickly as possible and if they are alive, hold the doe in your lap and then hold the mouth of the young to the teats of the doe and in many cases they will be able to nurse. If a doe shows herself to be a cannibal and insists upon killing her young, give her a close examination and see if she was too fat when bred or if it comes from other causes. In many instances, a doe is entirely too fat when bred. This produces excessive internal heat, which at the time of kindling becomes intense and results in a desire to kill her young. Try her again, provided she is a good doe, and if she persists in doing it again, you might try her once more, but usually it is better to place her on the table for eating.

Care of the Young.

Never touch the youngsters the first day, but on the second, take the doe quietly out of the hutch, place her where she cannot see you and kill the sickly, puny ones. If it is a large litter, separate them and give part to foster mothers which should have been bred and ready for the good doe's litter. Leave about three or four young with each doe. In giving the youngsters to the foster doe, it is advisable to leave her only two of her own and two of the other youngsters. Then

rub sawdust from the corner of the foster doe's hutch on the youngsters which you are going to give the foster doe. The Dutch make the best foster mothers. It would be well to use rubber gloves and rub plenty of the hair from the doe whose youngsters you are separating, or rub your hands in the sawdust on the floor of the hutch before handling them. An older and more difficult way is to take one of the youngsters, kill it, open the bladder, let the substance run over your hands and then handle the youngsters. In giving them to other does, it is necessary to keep them out of sight and to rub your hands in the hair of each doe to which you are giving them. This plan should be carried out by first placing them in a basket upon taking them from the doe. After separating the youngsters and before placing the doe back in the hutch, a nice tempting feed of green food and bread and milk should be placed in the hutch. This will attract her attention and she will probably forget all about the youngsters until time to nurse them.

The first two weeks it is advisable to keep the youngsters away from oats, green food, carrots or roots of any kind. Take the doe out of the hutch when feeding her for two weeks. By that time the youngsters' stomachs commence to develop strength and can stand the different food. They should have plenty of good sweet bread and milk each day from the time they commence to run around, but never permit it to stand around until it sours.

At about two months of age, separate the doe from the young by placing the doe in a separate hutch

and leaving the youngsters in the hutch where they were born. In warm weather two in a hutch is better for the youngsters, and at three to four months of age the bucks should be separated from the does. This rule is important and must be observed if you want bucks that are to be any good. Outdoor runways and little houses like the cuts shown in another chapter are fine things for the youngsters. In separating the youngsters, the "Gibson Marker" is a fine thing to use in keeping a record of stock.



**SOUTHERN CALIFORNIA CONEY FUR CLUB
OF LOS ANGELES, CALIFORNIA.**

CHAPTER V.

SELECTION OF FOOD AND PROPER FEEDING.

THIS subject, next to Housing and Hutches is no doubt the most important one we have to consider. The trouble with a majority of breeders throughout the country is they feed too much, especially with Belgians and other small breeds. The better way is to keep the small rabbits a trifle on the hungry order, then they will always be ready for their meal and will do much better. In other chapters, feeding three times a day has been explained, and in this chapter it will be shown that once a day can be carried out in a successful manner for the person who finds it impossible to feed oftener. Of course it is impossible to raise Flemish to the proper size, and develop them in the proper manner on one feed a day, but the other breeds of rabbits may be raised on one meal a day if the fancier's time is limited.

In feeding once a day, the proper time is at night. Only the best food should be given; whole oats, or barley in certain localities where oats are hard to procure. For the small breeds a large handful to each single individual rabbit, and two handfuls each to the does with young and the large breeds. Barley meal in mashes, or alone, is a good change, and bread and milk is the best of all. Some stock will refuse to eat bread and milk, but in most cases if the milk

is put in the dish and the oats on top of the milk, they will both rapidly disappear. Does with young should be fed more than once a day, and a morning feed of bread and milk works fine. At night alfalfa, or clover hay and carrots are necessary, and in extremely cold climates water at night is not necessary so long as carrots are given, but does with young should have the water both morning and night. The other stock will need water only in the morning and just what they will drink at once. In winter it is well to take the chill off the water, also the oats, making them warm.

Warm mashes should be fed often during cold weather. A good mash from barley meal, ground linseed meal, and bran; barley meal five pounds, bran three pounds, and one half teaspoonful of ground linseed meal. This will produce an excellent coat.

Potato peelings boiled soft, mixed with fine oatmeal and fed warm is another good mash.

Warm oat meal and milk in the morning, during the winter months is excellent.

Crisp dry white bread in the oven until slightly browned, then crush fine with a roller, and add to a mash of meal or oats. Boiled rice with milk is also good.

Another excellent mash is made by adding milk to boiling water, then stirring in equal parts of oatmeal, bread meal, pollards and barley meal. Add to this a little powdered cattle spice and a pinch of flowers of sulphur. This should be given in small quantities.

To come back to the fancier, who can feed two or three times a day, we find a fine array of different foods. In the spring, we have the morning feed of dandelions, alternating with plantain and burdock leaves. Later some carrot tops, cauliflower tops and chicory, but dandelions make the best feed of all. Lawn clippings are also good, but must be free from tobacco spit and dirt. In feeding lawn clippings and other green food, care should be exercised to see that it has not become heated from standing wet in a sack or basket. In either case it would be very unhealthy to feed and should be spread out on poultry wire to air.

Do not feed cabbage leaves at any time. Lettuce in small quantity is a good feed. Common table salt in the oats once a week is a good thing and plenty of dry hard white bread is another good thing, but should never be fed with butter on it. For does that appear to be run down, an eggnog is also a good thing for a tonic.

In feeding green foods to youngsters, they should be carefully watched, and if the bowels become loose, cut off the green food, also the bread and milk for a couple of days. Keep the youngsters away from hay and oats until past two weeks old. It may be necessary to feed them in separate hutches.

In feeding Flemish Giants and other large breeds, remember that plenty of bread and milk and cream occasionally will produce good results. A little raw beef each day, ground through a cutter, is an excellent feed to produce bone. You may experience trouble at first in persuading them to eat raw beef, but they

will soon learn to like it and nothing better for bone making can be found. This can also be fed in mashes. Do not feed in large quantities, but start with small feeds and increase the amount gradually.

Watch each individual specimen and you will soon learn their likes and dislikes. You then will be in a position to feed them accordingly and with good results. Never make a practice of throwing the feed in the hutch and running away. Watch them carefully at each feed. If you have not the time to spare with the stock, it will be better to give up the fancy at once, for it requires study and plenty of hard work to make a success of this business.

In feeding salt I would advise using table salt sprinkled in the oats. Rock salt can be placed in the feeding dishes.

CHAPTER VI.

SELLING AND SHIPPING.

THE QUESTION is often asked, "How can I dispose of my stock?" There are a great many ways to dispose of it. In the first place, you must be certain that you have the best stock, and the safest way to know that is to buy only registered stock, because you will then know that an experienced breeder, who knows just what stock should be, looked the specimen over thoroughly, and after pronouncing it a good specimen, tattooed its ear and made out the registration papers for it. After you are sure you have the best stock you can obtain, advertise it in a magazine devoted to the fancy, as that is one of the best possible ways to find a market for it.

Exhibiting at the shows is another good means of finding buyers for your stock. Enter it at some show which you know you will be able to attend, then be on hand and sell your stock. The large state and county fairs also afford good opportunities for selling stock.

Study out some plan of your own, for advertising and selling, as it is often the original one that sells the stock.

When in Portland, Oregon, the writer had the address of one of the largest rabbit breeders in the state,

and wondered if it would be difficult to locate his rabbitry. At the end of the car line was found a large sign board, containing a hand pointing in the direction of the rabbitry, on which appeared the words, "Two blocks to Northern Hill Rabbitry." That showed the average person, who was not interested in rabbits, that there is money in raising rabbits, and aroused their curiosity, and when you can get a person interested in rabbits, you can sell them. "Northern Hill Rabbitry" has sold many rabbits through those sign boards leading through the woods to the rabbitry.

In the first place try to sell your stock exactly as represented. Do not take a customer's money for a certain specimen, and because you can sell it for more, keep his money, and send him something inferior. You never know who the person is to whom you are selling, unless you have met him personally, and by putting one over on him, you may cause the fancy to lose one of its finest fanciers. The trouble is they seem to have turned the "golden rule" around to read, "Do the other fellow first." That is entirely wrong, and if you try to give the other fellow just a little better stock than he is paying for, the fancy will be better and you will be much happier. Never sell diseased stock at any price.

Be sure to keep an accurate record of the does you breed and sell, for you may forget the date you bred a certain doe and guess at it, and the fellow who receives her takes your word and perhaps is a little slow in giving her a nesting box and she kindles a week earlier than you stated. These things often happen, and the buyer is disappointed, for he may lose

the whole litter, all on account of your poor business methods.

Do not fake or guess at pedigrees for you are sure to get caught at this also. Make out your pedigrees with carbon copies and you will then be safe.

Never misrepresent the weight of Flemish, for fanciers are becoming so well educated, they know just how much weight a specimen should lose in transit, and they weigh them when received.

Keep your rabbitry clean and sanitary, so when people come to look at your stock, you will not have to think of some excuse to offer for the dirty appearance of your rabbitry. Kill off diseased stock, for it is the worst kind of a knock for a prospective customer to see sickly, diseased stock around the hutches. Use whitewash once a year, and don't be afraid to use a good germicide freely. Use a sprayer and you will experience better results.

Never exaggerate the winnings or the value of your stock, and never "knock" another fancier's stock, but always have a good word for the other fellow and it will help sell your own stock.

In shipping stock, if you promise to return the man's money if not as represented, and he returns the stock and gives you good reasons for so doing, be square enough to return his money at once. You will thus make a friend and probably a good customer.

Try to avoid shipping stock under seven or eight months of age, for you may be shipping away your most promising specimens. The writer recalls an instance of a certain experienced breeder of Belgians

selling a pair at two months of age. When one of them matured at eight months of age it was one of the finest Belgians in the country, and could have been sold for \$25.00. It does not pay to ship young stock, for, besides taking the chance of letting your best specimens slip away from you, you may also run the risk of having them stunted if they are shipped a long distance. Better keep them at home in the rabbitry, where you can keep your eye on them and watch them develop, and in the case of the Flemish and other large breeds, it will require a lot of time feeding and crowding them for weights at the ages of three to six months.

When you ship stock, don't get the idea that you must build a house for it. This is a mistake made by many fanciers.

For the small breeds, orange crates are the very best that can be had, and it will make them doubly safe to nail on a new bottom of thin lumber with the strips close together to protect their feet from possible injury. These crates are just right for two. Some prefer to slant the tops down part way to the sides, but this is not necessary. For single specimens, saw the box in two and it will be plenty large enough for two separate shipping boxes.

For Flemish Giants and larger breeds, shredded wheat boxes are the right size. Notify the purchaser that you will ship his stock by such a route on a certain date, then if it is a little later, he is sure to be on the lookout and receive it promptly. Write the name and address very plainly on the shipping tag or a safer way is to mark the crate itself with an indelible

pencil or marking ink, as the tag may be torn off, thus delaying arrival at destination.

Try to keep from shipping in extremely hot or cold weather. If you must ship in very cold weather, make your shipping box as warm and comfortable as possible, and instead of using the orange crates, use small boxes that canned goods come in, or egg crates are all right, provided you put burlap around them to keep out wind and dampness. The tops should not be left open in winter except small cracks between the slats. These with holes bored in the sides and ends near the top of the box, will give the needed ventilation. Put a good layer of sawdust in the bottom, then plenty of hay and a lot of carrots, and they will carry safely any place in America. No drinking or feed cups are necessary, for carrots are both water and food.

Make up a few shipping boxes in your spare time and it will save you considerable time later on when you are in a rush.



BLACK DUTCH BUCK.

(Unretouched photo).

Owner, J. H. Shannon, 538 Bergen Ave., Jersey City, N. J.

CHAPTER VII.

EXHIBITING.

IT HAS only been within the last couple of years that rabbits received any kind of recognition from the different Poultry Associations, but since the National Pet Stock Association and the American Fur Fanciers' Association began "boosting" the Rabbit and Pet Stock Shows, the Poultry Associations are glad to make the proper classifications for the rabbits at their shows.

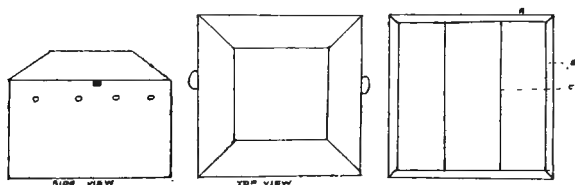
A wonderful change has come over the rabbit shows in America during the past two years. A few years ago it was a common sight to watch a poultry judge holding his judging stick in the hutches and placing the awards without even taking the specimen out of the hutch. It was also amusing to hear the different expressions of the spectators who called all rabbits Belgians. So much for education and the development of the rabbit in America.

The most important points in preparing stock for exhibition purposes are the conditions of coat and flesh. For about one month before the show, feed daily a few whole linseeds, and also give an eggnog each day. This will assist nature in producing the much desired silky coats. The coat must be bred in the first place and then carefully groomed with a few drops of glycerine in the palm of the hand. This will

help put a gloss on the coats. With the Angoras it is necessary to be more careful and use harder preparations.

When shipping stock to the shows, don't figure how cheaply you can send it, but how safely and in what condition it will reach the show room and return. A little extra expense at the start may be worth many dollars to you at the finish.

One great drawback has been lack of proper shipping coops for exhibition stock, but the one designed by Mr. Spence obviates this difficulty. This shipping box is without doubt the best made for long shipments in either cold or hot weather.



EXHIBITION SHIPPING CASE

Designed by Bevier Spence, Adrian, Michigan

1—Shows Case Closed. 2—Shows Top of Case. 3—Shows Inner Case
Manufactured and for sale by C. S. Gibson, Detroit, Mich.

It is the model used in transporting stock to and from the Panama-Pacific Exposition and proved highly satisfactory, the stock arriving in fine condition.

This model is designed by Bevier Spence, of Adrian, Michigan, an enthusiastic fancier, from whom they can be purchased at a reasonable price. It is the best box the writer has ever seen. The top is made of galvanized iron. The outside is made of good matched lumber, with holes in both ends and one side for ventilation. The inside is really

another box setting inside the outer shell, and is also made of thin matched lumber, with separate covers for each compartment. These covers are dropped down one-half inch to permit the outer cover to fit over them when closed. A space of one inch is left between the inside of the shell and the inside box, which prevents draughts from blowing directly on the rabbits. The air passes through the small holes in the side and ends, strikes the inside box and goes over the top of it to the rabbits.

Stock the shipping box carefully with bedding and food as directed in chapter on selling and shipping, and sprinkle a little germicide and disinfectant inside on the sides and bottom before shipping.

The greatest drawback in exhibiting is lack of proper caretakers to look after the stock when it reaches the shows.

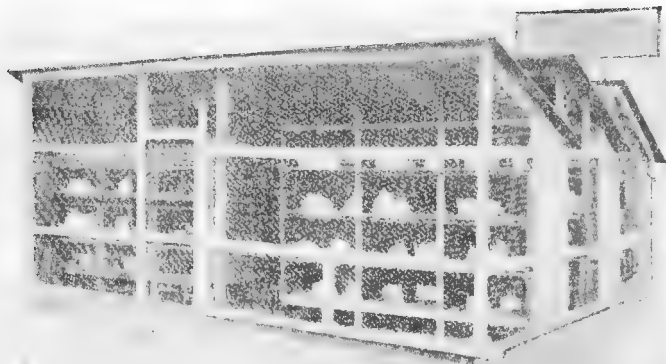
Another bad feature is the fact that exhibitors are not properly notified regarding their winnings, or the arrival of their stock. The proper form should appear something like this:

Official Show
Place
Date
Received from—
Name
Address
Breed
Sex
Class No.....
Specimen No.....

Number in Class.....
Awards
Strong Points.....
Weak Points.....
Disqualifications
Signature of Judge.....
Signature of Secretary.....

Such a card should be mailed each exhibitor when the class in which his stock was entered is judged and it would be an education to the exhibitor, who was unable to be present.

As the fancy becomes larger, the fanciers should hold out for spring and fall shows in the states where the winters are severe and the distances so great it is hard to induce exhibitors to show their stock.



Out-door Rabbitry of Reed Storm, Kansas City, Kansas. Ground space, 21 x 21 feet. Hutches 3 x 3 feet. Roof, back and ends are double, with double paper between. Roof projects over hutches, 5 feet.

Part II.

Varieties and Standards.

STANDARDS FOR JUDGING DIFFERENT BREEDS OF RABBITS.

THE STANDARDS printed in this book are the official markings and points adopted by the National Pet Stock Association of America. They are here arranged for the convenience of both professional and amateur breeders.

Disqualifications.

One or both ears lopped more than half way in any variety except lop ears; wry tail, a screw tail, with a deformed bone, that may be a complete turn or part. The bone may also be firmly set to one side. A tail carried to one side at times, not set solid, is not a disqualification, but should be cut. Bowed legs, knock knees, legs or feet crooked or deformed in any way. Juniors over six months old, off colored eyes or not matching body color specified. Foreign colored patches of hair appearing in certain places, where color is specified. A patch of hair should consist of enough hairs to make a distinct spot. Failure of important color markings specified in certain breeds. Plucking hair, cutting tails, dyeing or coloring hair, castrating or faking in any way.

Ears with a slit more than one inch in length or a part of the ear gone. Small holes or slits should be cut. Bad moult is not generally mentioned as a disqualification, but in strong competition a specimen in a bad moult is thrown out. The standards only show a few points for condition, but rabbits in bad moult lose all their color, or the greater part of it, so they lose out on both color and condition of coat. The hairs are nearly all dead, and show little color.

Steel Gray Flemish Giant Standard.

- Size and Weight—Bucks should not weigh less than 13 pounds and does as much over 15 pounds as possible. They should be large and powerful, resembling a giant in every sense of the word.....30.
- Shape of Body—Should be long and powerful, with very broad front and hind quarters.....10.
- Does to have large, full and evenly carried dewlap 5.
- Color—To be uniform, dark steel gray over head, ears, chest, feet and body. Under tail and belly shall be as near white as possible.
- Body color10.
- Feet, head, chest and ears.....10.
- Feet and Legs—To be straight, good length and large bones.
- Fore Feet 7.5
- Hind Feet 7.5
- Head, Ears, Eyes—Head to be large and well shaped, color same as body. Ears to be large,

thick, good ear carriage and color same as body color. Eyes to be medium size, dark brown and reposeful expression.....10.
Condition of Flesh and Fur—Flesh firm and solid, not flabby 5.
Fur to be close and soft, free from moult.... 5.
A scale of weights will help you determine if your stock is the right weight.

At four months of age, they should weigh eight to nine pounds, at six months, ten to eleven pounds, and as much more as possible. Most Flemish do not fully mature until they are fifteen months of age.

The Flemish Giant.

These words are misleading to the majority of fanciers throughout the country. Some of our American fanciers seem to think that Flemish Giant only means Dark Steel Gray. Such, however, is not the case for the natural color of Flemish Giants is just common every day sandy or brownish gray, and the beautiful dark steel gray is a color that has been produced only after years of hard work, study and breeding. The Flemish Giant in the first place comes from the family of large Giants called Patagonian Giants. Originally a native of Flanders and Belgium, it was imported into France and Germany and finally made its way into England. A vast improvement has been made in the color, but very little in the size, for the old Patagonian was a real giant in every sense of the word.

Until about the year 1885, very little improvement in color could be noticed, the common colors being light grays, sandy grays and often several mixed

colors. The National Flemish Giant Club of England was originated in 1885, and a marked improvement in Flemish was noted at once. In the early days, the ears were long and heavy, set wide apart and the tips hung over. In trying to produce better color, Silver Grays, Himalayans, and several other varieties were



STEEL GRAY FLEMISH GIANT DOES
Owner, Lew Griffin, Colorado Springs, Colo. Weight, 13½
14½, 15½, 16½ pounds.

crossed to improve certain color markings, the Himalayan to produce stronger feet color and also body color. No wonder so many different colored specimens will appear in one litter.

Until the year 1913, the American prize winners were nearly all imported from England, a few coming from Germany. During the last two years, however, very little imported stock has appeared in this country, and at the shows where it has been exhibited, the American home bred stock has usually won out. The writer has judged a great many English Flemish during the past two years and found them inferior in type, color and size to our American exhibits. The English Standard permits and requires the white



GILMOUR'S FLEMISH GIANT DOE, STEEL SENSATION.
Weight, 18 pounds
Owner, Ben Gilmour, West Terre Haute, Ind.

belly, which usually causes weak hind leg coloring, too much sandy color appearing and quite an amount on the back of the neck. The English type does not seem to have as large bones as our own type. In reading articles by some of England's most eminent authorities, we find the statement that bucks weighing more than fifteen pounds are the exception, rather than the rule. The writer judged Dark Steel Gray Flemish at Tacoma, Wash., Portland, Ore., Panama-Pacific Exposition, Los Angeles, Colorado Springs and Chicago, that weighed over fifteen pounds, so the American fanciers have every reason to feel proud of the great strides they have made in a couple of years. The Dark Steel Gray Flemish Giant is without doubt the most popular rabbit in America today, and the National Federation of Flemish Giant breeders is doing a great work for their favorite breed.

At the present time the demand for fine Flemish Giants far exceeds the supply. More than six specimens changed hands at the 1915-16 winter shows for fifty dollars each, and the prices will no doubt go to an even one hundred dollars this coming winter. Colorado, California, Washington and Oregon are in the lead at the present time with Flemish, but the Middle States are crowding them closely. The National Pet Stock Registration System has accomplished a great amount of good for the Flemish, and the Flemish breeders feel safe in purchasing registered Flemish Giants.

Housing Flemish Giants.

Outdoor open air hutches for Flemish Giants without a doubt provide the only housing to raise them

successfully. Having tried different kinds of hutches and rabbitries and investigated every kind of hutch and rabbitry in America, and consulted with America's oldest and most successful breeders, I am convinced that to be successful with Flemish, you must use the open air, outdoor hutches, with trees or awnings over them in summer, and burlap over a portion of the hutch in winter.

An interesting place to visit is the rabbitry of a certain well known breeder of Toledo, who has been very successful with Flemish. He has nothing but common dry goods boxes two rows deep along his fence, with an awning over them in summer for shade and burlap for protection in winter. His rabbits can be seen running in the snow in zero weather and you cannot discover a single specimen that has even a cold. Many similar conditions can be found in different parts of the country. Build your hutches long enough and according to specifications in another part of the book and success is sure to be your reward.

Feeding.

Use the same general directions as given for Belgians, only keep the feed before the Flemish all the time, and instead of having one foster mother for your Flemish, have three or four and, if possible, use cream instead of milk with the bread. Another excellent food to put on meat and heavy bone is ground raw beef, which can be fed either clear or with oats or in a mash. It may be hard to get them to eat raw beef at first, but after they get started on

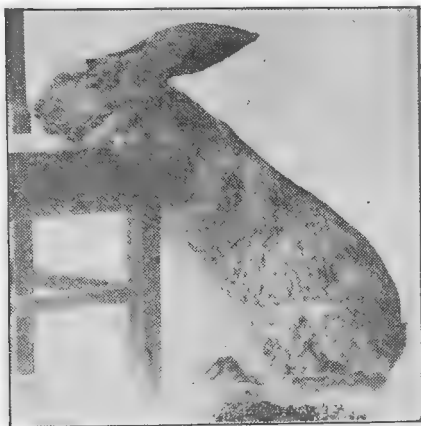
it they like it. Feed just a little at first, and do not start it until after the young ones are weaned. Keep plenty of clean straw or timothy hay in the hutches winter and summer, and you will have little trouble with the green food. Cut down the food supply on your bucks, and does that are not going to litter, so they will be in just fair condition for the hot summer weather. In localities where there is no extreme heat this is unnecessary. The youngsters should weigh four pounds or more at two months of age. When you separate the youngsters and divide the litters, proceed the same as with the Angoras. Use the same care in feeding and handling the Flemish as the Belgian (see full description in the chapter on Belgians). Study each individual and when you have learned their likes and dislikes, your task of feeding will be easy. Never overfeed the Flemish does before you are ready to breed them or after they are bred, for the conditions will be even worse with the Flemish than with the Belgians.

Breeding.

Breeding Flemish proved a task that discouraged many a new fancier and some of the old ones also. The most important thing about the Flemish is to be sure they are in perfect condition when they are bred. Never breed a buck or doe with the coat in a moulty condition, for very likely an Angora coated Flemish will make its appearance from breeding stock in a bad moult. The writer puzzled over this one point for some time, but after testing it in several instances

found the above to be true. The rough coat has been known to crop out in the third generation. Quite a few fanciers are wondering where their Angora coated Flemish came from.

Choose a large, powerful buck with good round, full shaped head, and above all, perfect ears, and a strong ear carriage. He should be a trifle darker in color than the doe, and if his breeding is known so



STEEL GRAY FLEMISH GIANT BUCK—"TOLEDO PRINCE"

Owner, Judd Wilson, 1820 Fernwood Ave., Toledo, Ohio.

Posing on an ordinary dining-room chair.

much the better. To produce Dark Steel Grays, the best results come from Steel Grays to Steel Grays, but sometimes beautiful specimens come from light gray Flemish. One large light gray Flemish buck we have in mind was the sire of some of the best dark steel gray Flemish Giants in this country, so you see it is a difficult problem to solve. Just keep persever-

ing, and the color is sure to keep improving. It may be necessary to use a large gray Flemish buck to increase the size. Then you will have to work back on the color again. Do not lose sight of the fact that the doe is about one-half the battle in Flemish, so choose a fine doe. A very satisfactory way is to buy a good doe and breed her to some well known producing buck and it will prove your best investment. It is a waste of time to purchase bucks or does under twelve pounds if you expect to raise exhibition stock.

In localities where it becomes extremely hot in summer the ears of the Flemish often drop, and sometimes a little fresh cool water to drink will revive them, and the ears may straighten up weeks after they drop. In choosing your breeding bucks and does try to find the ones with the long, broad fore and hind quarters and large, powerful legs, with large, full, well-rounded heads, and keep away from the short, squatty type of stock, for they never produce anything. Keep away from white hairs or patches of white, deformed bones, dropped ears or any other bad points, and then you are on the right road to success.

Color.

This is the bone of contention in all parts of the world where Flemish Giants are raised, and until the National Association Standard on Flemish was published, the American Fancier had no real rule or standard by which to be governed. At the present time it is pretty well understood by American breeders just

what color is desired. The National Standard says it shall be uniform Dark Steel Gray. That does not say Black Steel Gray, as a great many of our fanciers seem to think. To the fanciers who have seen steel gray Dutch, it is very easy to explain what steel gray color is, and how quickly the judges throw out the steel gray Dutch with black heads and feet! If you take a piece of polished steel and break it in two you have the natural steel color. The standard simply means that you take the steel color and place the gray color on it; that gives steel gray; then you darken the steel color a trifle and it is Dark Steel Gray. The hard task is to produce it uniformly. When the color becomes too dark it crops out in black heads, feet, ears, and a strip along the back. It should be an easy matter to tell when the Steel Gray is too dark. There is one whole shade between dark steel gray and black; it runs, Steel Gray, Dark Steel Gray and very dark steel Gray, and then comes a sort of Black Gray which has lost the steel effect entirely. In starting at the skin, a sort of slate blue color appears, then the beautiful, ticked dark steel gray. The rich ticking gives the dark steel gray effect. This color should be uniform on the ears, head, chest, front feet, body and flanks. The belly color should be as white as possible. The term slate color would possibly be more satisfactory to the majority of Flemish breeders. When a person has succeeded in breeding the perfect colored Flemish, they usually recognize it at once, and there never has been a show in this country that has enough of the standard colored specimens to cause any trouble in choosing the best color.

The Flemish should be in perfect condition as to coat and flesh when entering the show room. The fur coat should be smooth and the flesh firm and not baggy. If the Flemish enter the show room too fat they will go into a moult at once and handicap them at the start.

In separating the young Flemish, great care must be used in not destroying the most promising youngsters, for at two weeks of age some of the most promising Steel Gray will appear to be nearly black, but in a few days the steel colored hairs begin to make their appearance on the feet and later on the head and other parts of the body. Steel Grays should never be sold under six months and then there is danger of sending your best stock away, for the color proposition of the Flemish will fool the expert many times, hence it is advisable to keep the youngsters until they are nearly matured before parting with them.

Standard for Gray Flemish Giants.

This standard does not change or conflict in any way with the standard now in use for Steel Gray Flemish, but is entirely different, it being a standard to encourage the breeding of the large natural colored Flemish. You will notice that the points are nearly all for size, weight and condition. We have long felt the need of a standard that would encourage the showing of the large Flemish Giants, and this standard, was adopted by the National Pet Stock Association in September, 1916.

Size and Weight—To be as great as possible. Bucks, 14 pounds; Does, 16 pounds. Points, 30. Cuts 5 points for each pound under weight.

Color—Light Gray, Sandy or Reddish Gray. (Steel Gray will be disqualified in this variety.) Color to be as nearly uniform as possible. Points, 20. Cuts, 1 to 5.

Head—Shall be large, broad and shapely. Eyes—Dark brown, medium and expression reposeful. Points, 5. Cuts, 1 to 3.

Ears—Long, thick and erect; color to match body color as nearly as possible. Points, 5. Cuts, 1 to 3.

Body—Large, long, good shape, with broad front and hind quarters and broad chest. Does to have a strong, well developed dewlap, evenly carried. Points, 20. Cuts, 1 to 5.

Feet and Legs—To be strong, straight and powerful. Color to be as uniform as possible. Points, 5. Cuts, 1 to 3.

Condition—Fur to be close and soft. Flesh firm and solid. Points, 15. Cuts, 1 to 10.

Disqualifications—Crooked or deformed feet and legs, wry or crooked tails, lop ears, bowed legs, moon eyes or white bars on front feet.

Weights—Bucks—2 months old, 4½ pounds; 3 months old, 6 pounds; 4 months old, 8 pounds; 5 months old, 9 pounds; 6 months old, 10 pounds; 7 months old, 10½ pounds; 8 months old, 11 pounds; 9 months old, 11½ pounds; 10 months old, 12 pounds; 11 months old, 12½ pounds; 12 months old, 13 pounds, and 15 months old, 14 pounds.

Does—2 months old, 5 pounds; 3 months old 7 pounds; 4 months old, 9 pounds; 5 months old, 10

pounds; 6 months old, 12 pounds; 7 months old, 13 pounds; 8 months old, 14 pounds; 9 months old, 14½ pounds; 10 months old, 15 pounds; 11 months old, 15½ pounds; 12 months to 15 months old, 16 pounds.

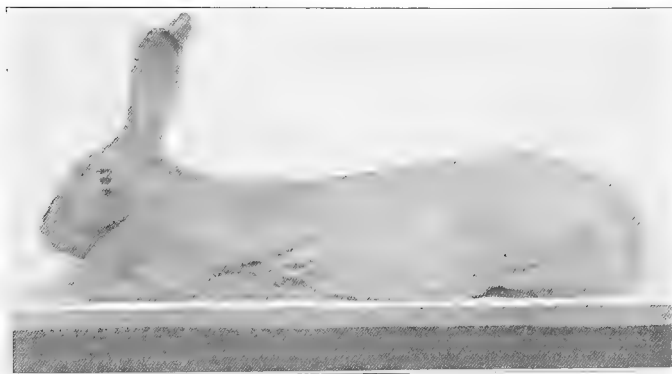
The Gray Flemish Giant.

The Gray Flemish is the largest rabbit in America, and is found in large numbers from Tacoma, Washington, to Los Angeles, Cal. Making classes for the Gray Flemish is the right and proper thing to do, for they are the natural colored Flemish and the largest rabbit we have. Quite often in a litter the largest type will be gray, while the smaller brother or sister will be steel gray and can be shipped away to the shows, while its brother has no class for it. The new standard will encourage many breeders of Flemish to come into the National organization, which will be one of the finest things for the fancy that could happen. The writer has received many letters complimenting the National Association on the stand it has taken on this standard.

It can be easily seen that its object is to breed the Flemish just as large as they can be bred, paying very little attention to the color. Size, weight and condition are the principal points in this class, and the shows are sure to see some large classes for this wonderful rabbit.

Housing, feeding and breeding should be carried out in the same manner as with the Steel Gray Flemish.

Great caution should be used against entering them in the show room when too fat or in a moult, as the new standard is rigid on these two points and they will be cut severely for these faults. Do not breed does or bucks that have rough coats, and keep them in perfect condition at all times if you are planning to enter them in the shows. To the average fancier



GRAY FLEMISH GIANT DOE—"1915 FRISCO BELLE,"
Cup winner at Panama-Pacific Exposition, San Francisco, 1915.
Largest and heaviest rabbit in show. Weight 19½ Pounds. January, 1916.

who has never seen a class of these real Giants, it would be hard to describe what a wonderful sight it is to see all the way from ten to thirty of them weighing from fourteen pounds to twenty pounds, and none of them too fat. When we find the show room containing twenty-two and twenty-four pound Flemish, we can then say our American Flemish breeders are at the top of the ladder, and what an excellent feature

for advertising it will make. Its color can be Light Gray, Sandy or Brown Gray as it is more often called, or a mixture of the two colors, but Steel Gray is a disqualification. The Grays are often crossed with Black Giant to produce Steel Gray.

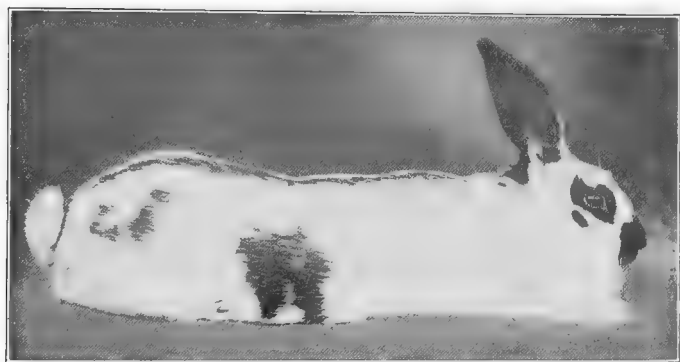
American Spotted Giant Standard.

(Formerly called German Checkered Giant)

Head—Large, but not so full as Flemish. Avoid “Bull Dog” type of head.....	5
Ears—Large, heavy, firm, solid color.....	10
Body—Long, well arched, broad hind quarters, straight, tapering to the front, not wedge shape. Body carried well off the ground. Upright position.....	20
Legs—Front legs long, straight, medium size bones, hind legs larger, carried parallel with body.....	10
Size and Weight—Large as possible. Bucks 11 lbs. or more. Does 13 lbs. or more	20
Color Marking—Without chain markings. Side markings to consist of two or more heavy patches on both sides	25
Condition—Perfectly healthy, not fat flesh firm and solid. Fur medium length, good quality, free from moult..	10
Disqualifications—All defects under general disqualifications, also split butterfly, one-half butterfly, absence of any important markings, as eye circles, butterfly, ear markings, more than three-fourths of saddle or side marking. Gray color or any three colors disqualifies. Side patches and saddle marking all in solid patch disqualifies. Cuts; double dew lops; sway back. Spots and markings other than called for to cut according to size and number.	
Black, blue and tortoise to be judged alike. No preference shown to either color. Separate classes may be made for blacks, blues, tortoisés.	

The American Spotted Giant.

This beautiful rabbit made its first appearance in this country a few years ago, and it became very popular from the start. Its fur is very valuable and one of our most popular American rabbits at the present time. They have some of the English spotted rabbit markings on them, the butterfly on the nose, the eye circle and spot are the same, but it has no chain markings, and the hind quarters have great patches instead

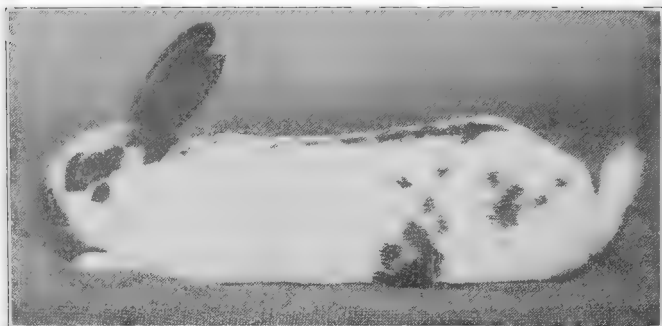


AMERICAN SPOTTED GIANT DOE, "ROYAL PRINCESS"

Owner, Homer Sanderson, Eagle Rock, Los Angeles, Cal.
Weight, 16 lbs. 1st, Indianapolis, 1917.

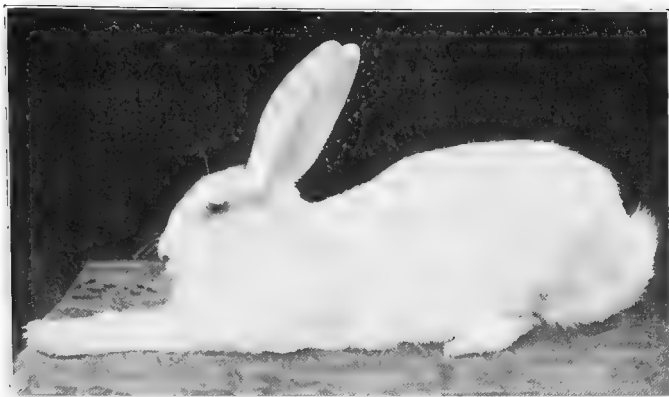
of small dots like the English. They become very large and it is no uncommon thing to see them weighing 15 and 16 pounds. They have been shown in black and white, blue and white and tortoise and white. They should have a nice, uniform butterfly, good ears of solid color, uniform sized eye circle and spots, uniform markings on each hind quarter, good straight saddle,

which is the line extending from the back of the neck to the tops of the shoulders. Some of them show three colors which should not be. Two colors are all the standard permits. Great care should be used in breeding this stock, and bucks with good strong markings should be used with the does that are not so strong on these points. Never breed them when moulting, and enter them in the show room only in perfect condition. The demand for this rabbit also exceeds the supply, and we now find it being raised from the Atlantic to the Pacific. Fanciers visiting the Chicago show in



AMERICAN SPOTTED GIANT, "SPOTTED WONDER," Owner, Horak Bros., Cedar Rapids, Ia., First Chicago, Jan., 1916.

January, 1916, will never forget the wonderful display of more than fifty of this beautiful Giant rabbit. The cuts show how well they are being bred in America. Good, first class specimens are bringing from \$25.00 to \$50.00 each. A fancier seeing one of these specimens for the first time finds it difficult to leave and often tries to purchase at once.



WHITE GIANT BUCK, "ALBINO BOY"
Owner, Jess McCulley, North Lewisburg, Ohio



WHITE GIANT DOE, "STAHL'S WHITE QUEEN"
Owner, Edw. Stahl, Holmes Park, Mo.

Black and Other Solid Colored Giants Standard.

Body—Same as Steel Gray Flemish.....	10.
Does with evenly carried dewlap.....	5.
Weight and Size—Same as Steel Gray Flemish..	30.
Color—Solid color over head, ears, chest, feet and body. Free from white hairs in blacks.....	10.
Body color—Head, ears, feet and chest color....	10.
Head, ears and eyes same as Steel Gray Flemish, except that the White Giants have pink eyes and other colored Giants eyes to match the body color.....	10.
Feet and Legs—Same as Steel Gray Flemish.	
Forefeet and legs.....	2.5
Hind feet and legs.....	2.5
Condition of Flesh and Fur—Fur should be close, thick, shining and free from moult. Flesh firm and solid, not flabby.....	20.

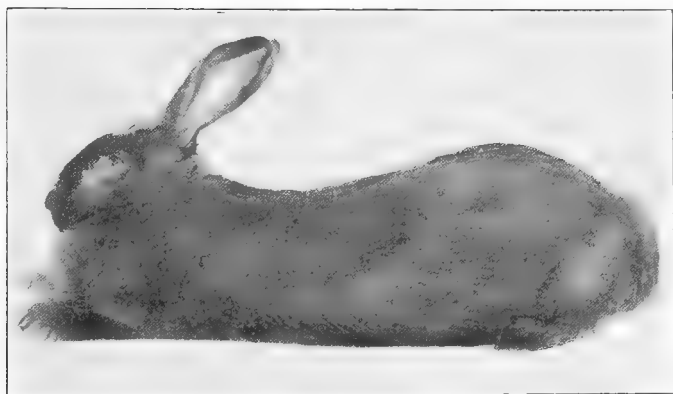
100.

BLACK AND OTHER SOLID COLORED GIANTS.

The Black Flemish or Black Giant.

The Black Giant, when bred to a good, dense black color free from white hairs, is a beautiful rabbit, and also a very valuable one. It is a hard problem to breed them without white hairs or white patches cropping out of them. Quite a few specimens have been shown that were remarkably free from white hairs and tipped the scales at 14 or 15 pounds. If they ever succeed in breeding them in large quantities their fur will be very valuable. They are used to a great extent at the present time by some breeders to cross breed with

the light gray Flemish to produce Steel Grays. They should be raised by the Flemish Giant standard. They should be entered in the show room in perfect condition, and free from hutch stains and white hairs. Hutch stains are a sort of dirty reddish brown and sometimes cover half of the hind quarters and belly. Their hutches should be kept as clean as those of the Angoras or the Himalayans.



BLACK GIANT DOE, "DINAH"
Owner, Mrs. Guggenheim, Babylon, N. Y. Weight, 16¼ lbs.

The White Giant.

This is another giant that is sure to become very popular, if the breeders can only breed enough of them to supply the demand for fancy stock alone. Several beautiful specimens were exhibited at the Chicago show, 1916, and they caused all kinds of favorable comments. They should be judged the same as the Steel Gray Flemish Giant, outside of the color.

New Zealand Standard.

Head—Full and shapely. Color to match body color with as little white under jaw as possible. Points, 5. Cuts, $\frac{1}{2}$ to 3 points.

Ears—Erectly carried. Medium thick, 5 to $5\frac{1}{2}$ inches long; color to match the body color; free from black lacing. 10 points. Cuts, 1 to 5.

Eyes—Large, bright and hazel with as small a white eye circle as possible. Points, 5. Cuts, $\frac{1}{2}$ to 3.

Color—Reddish Buff, carried well down to the skin and evenly down over the sides and hind quarters; free from black hairs and not dark or smudgy, or light buff. Reddish cream belly color. Points 30. Cuts, $\frac{1}{2}$ to 10.

Shape—Body medium long and medium broad fore and hind quarters, does to have even dewlap. Points, 10. Cuts, $\frac{1}{2}$ to 6.

Weights— $4\frac{1}{2}$ pounds at 3 months; 5 pounds at 4 months of age; 6 pounds at 5 months of age; 8 pounds at 8 months of age, and does 10 pounds at 12 months of age; bucks 9 pounds at 12 months of age. Points, 20. Cuts, $\frac{1}{2}$ to 8.

Legs and Feet—Strong and straight; medium heavy boned. Color same as body (all four feet). Points, 15. Cuts, $\frac{1}{2}$ to 6.

Condition—Full in coat and solid flesh. Points, 5. Cuts, $\frac{1}{2}$ to 3.

Disqualifications—Lopped or fallen ear, crooked feet, faking on ages of juniors in junior classes, plucking or dyeing, other than hazel eyes, wry tail, or crooked leg bones.

New Zealand Red Rabbit.

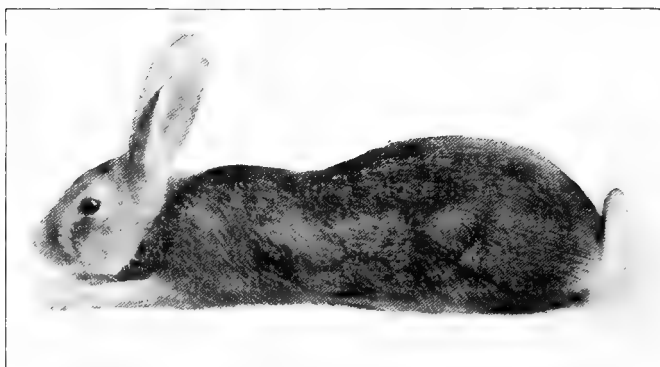
The origin of the New Zealand Red Rabbit forms one of the most interesting chapters in the history of the rabbit family.

The writer became acquainted with two noted rabbit breeders while in California, who claimed they purchased their first stock from sailors coming into the San Francisco harbor on boats direct from New Zealand. The sailors claimed to have purchased them while in New Zealand ports and that they were very common in certain parts of that country. The writer also examined papers coming direct from the government officials, which answered the description of the rabbit about which our California fanciers made inquiry. These are the only facts we have been able to place before the fanciers of this breed of rabbit. In justice to the New Zealand Club, we feel that they have as good arguments to claim the rabbit originated in New Zealand as others have to claim it originated in America.

It made its first appearance during the year 1909 and was a poor looking specimen as compared with the beautiful rabbit called by that name at the present time. The first few specimens to be shown in the east resembled an old dirty piece of canvas in color. Their type was also poor and many of them were covered with white hairs, some having considerable ticking (black hairs) on the hind quarters and along the top of the back. The front legs had white bars and the hind legs on many specimens were entirely white. The ears were short with ear lacing showing

strong and large white circles around the eyes. It would prove interesting to compare the first standard with the one adopted by the New Zealand Club and the National Association during the summer of 1916.

The fanciers who saw the first New Zealands and the ones today can scarcely believe their eyes for the great change which has taken place is indeed remarkable and all the more so when you consider that sev-



NEW ZEALAND BUCK, "RED CONQUEROR."

Bred by G. N. McCoy, Tacoma, Wash.

eral noted American fanciers used every possible opportunity to "knock" them. With all the "knocking" they made friends everywhere, and continued to improve so rapidly, in both type and color, that even the fanciers who were against them at the start were won over by their many good qualities.

The credit of placing this variety in the front ranks of the rabbit family belongs to a very few fanciers, fanciers in every sense of the word, for with everything to discourage them they showed their confidence

in the rabbit and with "dogged determination" never gave up until their rabbit was recognized in not every part of America alone, but in other countries as well. It would be unfair to pass the early development of the New Zealand without giving the names of the fanciers who gave their time and money for the betterment of this rabbit. The names of Caldwell Bros., C. P. Gilmore, Mrs. C. A. Richey and Hale Prather, all California fanciers, and Mr. F. M. Youngs of Portland, Oregon, are all familiar to the New Zealand fancier. There are many other fanciers in the different states who have also worked hard for their favorites, but the ones mentioned were the first breeders of this variety, and had hard work to convince the fancy that their rabbit was worthy of consideration and not a "fake."

The New Zealand has made the greatest improvement in type and color of any rabbit ever seen in America. During the winters of 1915 and 1916 certain fanciers conceived that the name should be changed to American Reds, and without a vote or any authority whatever, they were entered at a certain show as "American Reds," "Formerly New Zealands." This proved the best thing that ever happened to the New Zealand rabbit, for the real fanciers banded together and called for elections in both the New Zealand Club and the National Association. The elections were held during the summer of 1916, and proved to be a great victory for the name New Zealand. The New Zealand Club voted about "ten to one" not to change the name to "American Reds." The vote of the National Association was 18 for "American Reds" and

144 for "New Zealand." This vote clearly showed "New Zealand" was the name desired by the old fanciers. The agitation over the name created such a demand for stock that the large breeders were soon sold out, hence it proved to be a good thing for the New Zealand.



A TRIO OF FINE NEW ZEALANDS
Weight, seven pounds each at five months.
Owned by Mr. McKee of Los Angeles, Calif.

California contains the greatest number of New Zealand breeders and it is an interesting sight to see the many New Zealand rabbitries all the way from Sacramento to San Diego. The large majority are around Los Angeles, and in certain localities the New Zealand is the only breed of rabbit being raised. Oregon, Washington and Oklahoma come next in number of New Zealand breeders, but nearly every state now has a few. The demand far exceeds the supply and breeders are able to sell their finest prize winning stock for twenty and twenty-five dollars each, while

good specimens sell readily for five dollars apiece. The New Zealand is not a fancy rabbit. Its type is ideal for meat and that is the main reason for breeding it, but the public enjoy seeing them on exhibition and large classes are found at the well known shows.

In describing the New Zealand, it will be well to use the new standard which is the recognized standard of America.

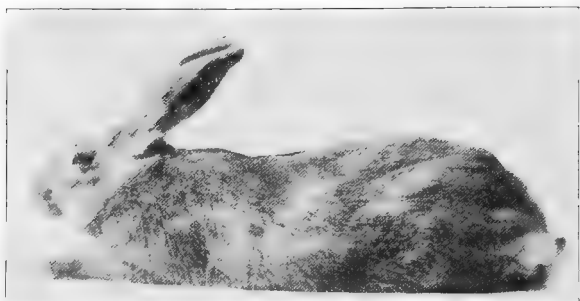
Starting with the head, it should be full and shape-ly, more particularly with the bucks. That is one strong point by which to be guided in selecting stock. Never purchase a buck with a small fine head on the Belgian hare type, for if you do, small undersized stock will be the result from mating with such a buck. The head color should also be of a good, rich, deep "Reddish Buff" with as little white under the jaw as possible. One of the failings of the breed is the color of the head, many of them running too light.

The ear is another weak point. It is apt to run too short in length and weak in color. The breeders are getting away from the ear lacing, but the color and length need improvement. The length should be well over five inches and in mating never use a buck with ears under five inches in length. The color should match the body color, which should be dark and rich.

The eye comes next, and is being greatly improved by breeding out the great white circles that were so plainly seen on the first specimens. The eye should be large, bright and hazel, and with as little white eye circle as possible. This circle is a white or light circle of hair, starting close to the edge of the eye and running entirely around the eye. It will probably be

impossible to breed it out entirely, but at present it is weak and will become weaker with careful breeding.

The color is a point that causes the fanciers considerable trouble, as they have different opinions as to the correct one. Some think it should be "solid red," others "fawn color." The standard calls for "reddish buff," which is the correct color. It may help to mention "bright orange" and use that color



NEW ZEALAND BUCK—"RANGITERIA"

Owner, C. P. Gilmore, R. R. No. 2, Santa Barbara, California.

as a guide in selecting the proper shade. The color should be a "bright reddish buff," and be solid over head, ears, chest, body and tail. It should be as deep in tone as possible, free from white or black hairs and extend well down the sides of the body, hind quarters and feet. The belly color should be a "reddish cream."

The body should be of medium length with medium broad front and hind quarters; does to have even dew-lap. The type of the New Zealand is entirely different from any other rabbit, shape ranging between

that of the Belgian hare and the Flemish Giant. This means that it should not have the racy appearance of the Belgian hare or the long, broad shape of the Flemish, but a happy medium, a medium compact shape with heavy hind quarters, and coupled up rather short, which makes it a great meat rabbit.

The weights should be, bucks, nine pounds, does, ten pounds at maturity. Legs should be straight, strong, medium length, and medium heavy boned, and all four feet solid colored to match the body.

The New Zealand is considered the best rabbit we have for fryers, as the best age for fryers is from eight to ten weeks and this rabbit will weigh nearly as much at eight weeks as a Flemish Giant and more than the Belgian hare, and the Flemish has more frame and bone at eight weeks than the New Zealand, which shows that the New Zealand has more meat and is the better rabbit for frying. The meat is very tender, white and delicious and has become a great favorite in the markets on the Pacific Coast and other sections.

The question is often asked, "How can one tell the difference between 'Buff Belgians,' 'Golden Fawns' and 'New Zealands'?" Before answering, it may be well to note what the other rabbits are and where they originated. "Buff Belgians" and "Golden Fawns" are the same rabbit and are "Belgian Hare sports." They originated in the following manner: During the year 1872, the English fanciers in experimenting to improve the "Silver Fawn" crossed it with the "Belgian Hares," with the result that some Belgians imported during the Belgian Hare "craze" bred the "Golden Fawns"

and "Buff Belgians." The under color of the Silver Fawn is a "bright orange," hence it is easy to see why some Belgians breed the "Sport Belgians." They are usually small, not over seven or eight pounds, with heavy ear lacing, fine bones in legs, fine heads, Belgian hare color on the hind quarters of many specimens, feet color very often like the Belgians or very close to it. They are more racy in appearance and easily distinguished from true standard bred New Zealand.

Housing.

The New Zealand will do well in almost any good, clean quarters that are free from dampness or draughts of air. For meat stock they do well out of doors in either movable or the open, self-cleaning hutches. Fancy stock should be protected from the direct rays of the sun, as they are liable to fade to a certain extent. The picture of C. P. Gilmore's row of self-cleaning hutches gives a fair idea of how they may be raised in warm climates, while in cold climates, the rabbitries described in another chapter would be more desirable. In raising fancy stock the hutches should be kept clean, with plenty of fresh straw at all times for their feet are very easily stained from dirty hutches.

Breeding.

In selecting stock for breeding, great care should be used to breed bucks with good type and color. The

buck should weigh not less than nine pounds, have good solid color on all color points and ears well over five inches. Never use a buck with short ears, poor color on the body, feet, head or ears, or one that has any white or black hairs. The doe should be of fine type and color and weigh not under ten pounds.

Three litters a year is enough to insure good, healthy stock, and many fanciers have only two litters a year from their fancy stock. Foster does should be used with each litter and the youngsters should be crowded in feeding all they will stand until they are seven months old, for they grow fast and if they do not get their size while young they will never amount to much as far as size or weight is concerned. For the market the youngsters should be fed bread and milk each day and also plenty of green food so long as their bowels do not become too loose. Raw beef cut up fine and fed raw or with mashes is good for weight. They should weigh about three and one-half pounds at eight weeks of age. The does make good mothers but should not be disturbed for a week before they are due to kindle. Feed them bread and milk a few days before they are due, and place a nice feed of green food before them the day they are due.

To pick the best young ones at an early age is difficult. It is best to kill only the sickly, puny-looking ones after they are two days old, then give about four to each doe. Separate at about eight weeks of age.

Never breed a buck or doe that is moulting, for the youngsters are sure to have rough coats. Seven months is about the proper age at which to breed both bucks and does. Three years is long enough to breed

them, for they commence to lose their color and a certain amount of vitality after that age has been reached.

The New Zealand is the first rabbit to be exported in large numbers from America to other countries. Large numbers are now being sent to Hawaii and Japan by California fanciers. With the new standard settled and the New Zealand Club and the National Association affiliated, the future of the New Zealand seems very bright, and it is sure to become one of the most popular rabbits in America.

While acting as secretary for the National Association, the writer received only six complaints from dissatisfied New Zealand fanciers, and this alone speaks well for the great popularity of the New Zealand. It is easy to raise, breeds true to color, will eat anything and thrive on it, and is one of the healthiest rabbits we have. It has so many good qualities the fanciers have every reason to feel proud of their favorite breed of rabbit. When purchasing New Zealands insist upon registered stock, as this will prove a protection against breeding failures.

Belgian Hare Rabbit Standard.

Shape—Body to be good length, slender, tucked up at flank and well ribbed up. Back a trifle arched, rounded loins. Head good length, chest to be muscular, tail straight, not wry tail or crooked; and very racy appearance.

Body	10
Chest, head, and tail.....	10
Color—To be a rich, deep, dark cherry red or dark mahogany color. Rufus red is the color generally spoken of, but very few fanciers have any idea what those words mean. The color should be uniform over head, ears, chest, feet and body; should be very deep, extend well over the hind quarters, and down the sides to the belly color, which is often of a rich golden color on some of the best colored specimens. The different standards call for creamy belly color. The under jaw should be as free from white as possible.	
Body	10
Head, chest, hind quarters and tail.....	10
Ticking—Rich black and very wavy in appearance.	
Color	5
Quantity and wavy in appearance.....	5
Feet and Legs—Front feet and legs should be of good length, solid color and free from ticking (black hairs) or white hairs.....	
	5
Hind feet—To be rich, solid color.....	5
Ears—To be five inches in length, good, rich ear lacing, which is the black marking around the tips of the ears. They should not be smudgy, but clearly marked. To be thin and good color and to be firmly set at ear base.	
Color	5
Shape and Carriage.....	5
Weight and condition—Eight pounds or under.	

Flesh should be firm and solid. Does with-	
out dewlaps.....	15
Eyes—Large, bright and expressive, color, rich	
hazel.	
Right eye.....	5
Left eye.....	5
Fur—Quality rich, close and free from moult....	5
	100

Belgian Hare.

This rabbit is the most widely known rabbit in America, and has been the most popular one for years. It has always been popular in England also. At first it was called "Belgian Hare Rabbit." It is a rabbit and not a hare. Many attempts have been made by English fanciers to cross the Belgian hare with the Wild English hare. They have always met with failure, as the laws of natural mating cannot be overcome. The name "hare" was given the rabbit because after years of careful breeding it resembles the wild hare, in the shape of its head, ears and body, and the restless harelike appearance of its eyes and general build.

The early history of the Belgian hare shows it to have been found in Belgium, Flanders, France and Germany and it is thought to have come from the same Patagonian Rabbit as the Flemish Giant. The early records of the Belgian show it to have been nothing but a large gray rabbit with very little type or color,

and it was not until the English fanciers imported it and started breeding it up to the present high standard that it became a beautiful rabbit. Our English brothers deserve all the credit for the appearance of this rabbit at the present time. At one time it was necessary for the does to have dewlaps to make them appear beautiful, according to some of the early fanciers of this rabbit.

It may interest you to notice an old standard of the Belgian, which will show you the marked improvement in it.

Former Belgian Standard.

	Points
Color	25
Size to weigh ten and one-half pounds.....	15
Ears	10
Eyes	5
Head	5
Shape	20
Ticking	20

Different opinions exist among fanciers as to the correct color for the Belgian hare. The writer holds to the same views as those of many old English fanciers, that the rich golden tan is not the proper color for which to breed. A few years ago the beautiful, shiny mahogany or dark, cherry red specimens with their great depth of color and rich wavy ticking made a much more attractive appearance than the present day golden tan without scarcely any ticking, a weak outside color, and in many specimens the hind feet color so weak it looks like flesh color. The color of the

Belgians has certainly lost much in attractiveness during the past five years, and the American breeders should pay particular attention to the color breeding.

The Belgian hare is the brightest rabbit of all and with a little patience can be taught many tricks, especially in posing.



BELGIAN HARE DOE—"PANAMA GIRL"
Owner, J. W. Harris, 821 South Cascade Street, Colorado Springs,
Colorado. First at Denver, 1915; First at Panama-Pacific
Exposition, 1915; First at Colorado Springs,
Colorado, 1915.

American fanciers imported them in large quantities from England during the years 1898, 1899 and 1900. It was during this period we experienced the great

Belgian hare boom in this country. People in all walks of life invested in Belgian hares, and fortunes were made and lost. From Chicago to the Pacific Coast the interest was at fever heat, and Chicago, Kansas City, San Francisco and Los Angeles were the great centers. It was a hard matter to purchase a fine specimen for less than \$50.00, and many sold for \$100, \$150 and \$200, while one famous specimen brought over \$1,000. Wealthy business men of Kansas City organized importing companies, and paid experts large salaries to go to England and also to Los Angeles and pick out fine specimens. One Kansas City concern owned 5,000 Belgians at one time. The Los Angeles papers would be full of notices of auction sales of Belgian hares and people would come from all parts of the country to buy. Belgian hare meat was served at the fashionable hotels and on dining cars, and the demand was great.

To secure winners for the great Chicago show in 1899, \$100 each was paid for specimens that won only fifth prizes in their classes. The writer is personally acquainted with an Englishman who has made his home in America since just before the boom started, and being a Belgian hare fancier he was fortunate enough to breed and exhibit the winner for the great Chicago show. We had many wonderful experiences during that boom and it affords great pleasure to meet the few fanciers who are still in the fancy that were in the game during the great boom. The boom quickly died out on account of the snuffles, high prices and dishonest breeders.

The Belgian hare suffered a serious setback from

the year 1900 until the National Pet Stock Association was organized in 1911, and since that time the Belgian hare fancy has been rapidly improving. At the National Association show held at Colorado Springs, Dec., 1914, the writer was judge and found over two hundred entries of Belgian hares. The adult doe class contained sixty specimens and the competition was very



BELGIAN HARE DOE—"AMERICAN BEAUTY"
Owner, L. J. Griffin, Colorado Springs, Colorado.

keen and the stock fine. The owner of the best Belgian in the show refused \$50 for it. The National Belgian Hare Club of Denver also accomplished a great amount of good for the fancy during the boom. The National show at Chicago in January, 1916, found nearly one hundred Belgians and some of the finest

specimens the writer has judged. During the past two years the A. F. Assn. has been working hard for the Belgian hare fancy and at the present time the Belgian hare is again popular.

The Panama-Pacific Exposition Pet Stock Show of December, 1915, and the Colorado Springs show of the same month had some fine specimens. A great improvement has been noticed during the last few years and it becomes harder each year to find the culls at the shows. The Belgian hare can stand a lot of severe cold weather, but it is one of the weakest constituted rabbits we have when disease of any kind overtakes it and it cannot stand dampness at all. It has been inbred so much that it has lost a great amount of its vitality.

Nearly every winner at the Crystal Palace Shows of London can be traced to a noted buck, the famous African Chief. The English fanciers ship their does miles to get the service of good bucks, while the American fancier is just the opposite, and it is not very encouraging to the American fancier to breed good stud bucks, for the Belgian fanciers will not pay him for the service of the buck. This is one of the worst mistakes a fancier can make, for in building up his strain he should spare neither pains nor money, and at the same time encourage breeders to improve their stock. Lack of good stud bucks has been a drawback to our fancy.

It was amusing to watch visitors at the shows during the years 1910-1911, looking into the hutches and calling the different varieties of rabbits Belgian hares. The public has become educated during the past two

years, and are becoming well posted on the different varieties of rabbits.

The present high cost of meat in America has created a great demand for Belgian hare meat, and we find many fanciers enjoying a fine trade on dressed Belgian hare meat. Making the fur of Belgian hare into Near Seal hats and other articles of clothing has also created a demand for the skins which will be developed rapidly in the next few years.

Housing and Hutches.

There are many arguments for and against outdoor, open hutches, but the breeders who raise their Belgian Hares in them are the ones that have been in the fancy for years and are having the greatest success. It has been proven many times that it is next to impossible to raise Belgians, in any large quantities, in a closed rabbitry. In another part of this book you will find several different kinds of hutches, and the good points of each. There are a few objections to outdoor, open hutches, such as it being a hard job to feed the rabbits in cold weather, and that their color becomes faded from the sun. You can remedy the latter by having a large awning or cheap roof over the entire collection of hutches, or they can be built in the shade. Other drawbacks are thieves and dogs. A good watch dog would settle them. When the rabbits are cooped up indoors and they catch cold, it is impossible to cure them in the majority of cases, but if they are in the open air you can cure them very easily in most cases. It is amusing to see some of the fanciers who are op-

posed to open air hutches place their sick rabbits outdoors.

One of the greatest drawbacks to the indoor rabbitry is poor ventilation, bad roofs and sides. The roof should be at least four feet above the top of the upper row of hutches, and should consist of a layer of boards, then tar paper, felt, or similar material, and the extreme outside should be of metal, slate or any serviceable material. The sides should be built in the same manner, with a small space between the outside of the hutch and the first inside siding, then a row of paper should come next and another layer of matched siding on the outside, then plenty of overhead ventilation, large clean hutches, with plenty of slope to drain the wet away from your hutches, and plenty of sawdust and straw, both winter and summer, will help make the indoor rabbitries sanitary, but if you have not such conditions, your stock will have colds and later snuffles, in spite of anything you do. The writer, with over twenty years' experience raising stock in all kinds of hutches and conditions, is firmly convinced the only healthful and successful way to raise Belgian hares is in the open hutches, which are fully described elsewhere.

Hutches should be made four to five feet long by twenty-four inches wide and twenty-four inches high, with a nesting box about twenty-four inches square, having a small hole in one end about three inches above the bottom of the box to keep the young from crawling out the first few days. A small shelf on one side of the hutch will permit the doe to get away from the youngsters to rest.

The proper slope of the floor in the hutches would be about one and one-half inches higher at the back than in front, provided your drainage troughs are in the front of the hutches. If they are in the rear of the hutch, slope them from the front to the back. The drainage troughs can be made of tin or wood, and sloped along the floor of each hutch the entire length of the row of hutches and then run off into pails or outdoors on the ground. Never build your hutches above horses or cattle or in with poultry. Build the hutches about five to eight inches off the floor. Long hutches about eighteen to twenty feet, with several hurdles in them, are fine for youngsters just after being weaned. In using self-cleaning hutches be very careful of the youngsters for they are apt to get deformed front feet. They are fine for adult stock, but caution must be used with the young.

Feeding.

In feeding Belgian hares the most successful way is to keep them a trifle on the hungry side at all times and in this way the stock will be more healthy. The most successful breeders are the ones who feed their rabbits, regardless of the breed, as individuals and watch what each one seems to relish. The fancier who goes to his hutches and throws the food at his stock and never pays any attention to how they are eating, will very likely have a larger burying than sales list. The fancier who loves his stock and never passes them without examining them closely, noting at each meal how and what they are eating, and if they refuse to

eat, try to find the trouble, is the fancier that will be successful and make money on his rabbits. Good wholesome feed at regular hours is what your stock requires.

In certain localities where the summers are hot, it is advisable to cut down the feed in the spring, so the stock will be better able to withstand the hot weather. Starting in the early spring, dandelions, chicory, plantain leaves, carrot tops and cauliflower tops, fed in the morning on different days, make a fine feed, but it should be fed very carefully at first and never fed when wet or heated from standing in sacks or boxes. If it has been in sacks or boxes for any length of time, be sure to spread it out on some chicken wire, where it will soon cool off and dry out. Lawn clippings are good provided they are cut from clean lawns, but often lawn clippings cut from lawns along the sidewalk are covered with tobacco spit, and the poor rabbits are expected to eat them.

At noon for young stock and nursing does, bread and milk is one of the best meals you can give. If their bowels become too loose, cut down on the green food, also the bread and milk. Plenty of fresh straw or timothy hay, not alfalfa, kept in the hutches summer and winter will keep rabbits from getting the scours, even when eating a lot of green food. At night clover hay or alfalfa with good whole oats, a small handful to each individual rabbit, makes good feed.

In summer rabbits like good fresh water several times a day, and their dishes should be kept perfectly clean at all times. The milk dishes should be scalded

each day and the milk should not be left standing in the dishes very long at a time, as it sours quickly. Never give the milk to them chilled. In the winter all rabbits that are not nursing young can get along without water, provided you give them plenty of nice clean carrots with each meal.

Winter feeding is harder than summer, for good warm mashes should be given at times. One very fine warm mash is made of barley meal shorts and a little oil dust. Another can be made of potato parings boiled and mixed with barley meal. Good whole oats slightly warmed in the morning or noon is good, and at night good pure clover hay or alfalfa with carrots makes a good feed. Some fanciers give their rabbits just a little water in the morning during the winter months but never leave any standing in the dishes. Bread and milk slightly warmed is also good for noon feeding in winter.

Have hay racks in your hutches and build in places for the feed and drink dishes, so they cannot upset them or get any dirt into them. A block of wood one to two inches thick, with holes cut to hold the dishes, placed in one end or side of the hutches will keep the dirt out of them. If the fancier has not time to devote to his stock, he might as well give them up, for they will be a bill of expense, and an ever-increasing burying ground will be the result. Try to keep the youngsters from eating anything but bread and milk until they are at least three weeks old, for their stomachs are not strong enough to digest much green food or oats and hay. It may be necessary at times to feed the does in separate hutches from the

youngsters. Never give over four youngsters to one doe, and separate them as directed under the head of Angoras, and give the doe that will not mother her youngsters the same treatment as suggested in that chapter.

Breeding the Belgian Hare.

Each fancier has a different idea of breeding. There are a few set rules, however, that when properly lived up to will prove to be very satisfactory to all. In breeding exhibition stock never figure on over two or three litters in a year, and never breed your stock in summer, unless it is to increase the length of the ears, which can be done to a certain extent. Spring and fall breeding are the best, for at those times the coats are usually in fine condition. It should be figured out what shows your stock is being bred for, and the age of the stock you wish for those shows, then breed accordingly. Use about three does a week to your bucks during the heavy breeding season. Let both bucks and does rest during the months of June, July and August, to obtain the best results.

In selecting your stock remember that nearly two-thirds of the color comes from the bucks and the shape from the does. Choose bucks with good, rich, uniform color, and with as good length and shape as you can find. The does should have, first, length and type, then as good color as can be found. Never breed old bucks to old does, but use one young one. At times it may be necessary to breed a buck five or six months of age that has extra fine bones, to breed out large heavy bones in the stock. Never breed unhealthy stock or any that has bad points unless they are minor ones.

The better stock you breed from at the start, the more marked will be your success.

Try to establish your own strain, so you may know every sire and dam for several generations back, then it will be an easy matter to tell why certain specimens are running poor in some points. Try bucks to different does until the doe is found that will produce the best stock from the certain buck, then breed these two together. Do not use short-legged, heavy-boned bucks with short ears, regardless of their colors, as the stock will never amount to much, unless its sire and dam have good blood. Begin breeding the does and bucks at about seven months of age. Watch the litters closely and aim to improve each one. Your first litter should come about March 1st, and if the weather is extremely cold extra precaution should be taken to keep the youngsters from freezing. A hot water bottle wrapped in flannel and placed in one corner of the nest box the night the doe is due to kindle will prove a help to her.

Never breed does or bucks unless both their coats are in perfect condition, for silky fine coats never came from a buck or a doe that was moulting. This fault is one of the hardest things to breed out that one has to contend with. Good silky, glossy coats will produce the same kind in the youngsters. Three days before the doe is due to kindle feed her bread and milk each day until she kindles and then continue feeding both her and the youngsters bread and milk until she weans the young, which should be at about two months of age. Some breeders let them run with the doe until they are three months old. The day the



To some people it comes as a sensational piece of news that the Rabbit is the most valuable commercially of all the fur-bearing animals. Wherever Rabbit fur has been exhibited it has met the most enthusiastic reception, and secured high prices for its producer. The illustration above shows the 1918 exhibit of the Coney Fur Club of Los Angeles. The exhibit contained over two hundred sets of furs, all tanned and made up by the members of the club.

doe is due to kindle give her a full feed of green food and a fresh dish of water, place her in a nice, quiet hutch away from other does or matured stock of any kind. This method of feeding and attention to Belgians may be carried out with nearly every breed of rabbits, and with the larger stock just increase the amount of feed.

In selecting your youngsters never choose the small, dark, smudgy specimens, but the long, racy and bright colored specimens. At two weeks of age it is safe to select the ones to be kept for exhibition purposes. Pay close attention to the ears, chest, neck and tail on the youngsters, for the color usually shows up first on these points. Select youngsters also that have deep, rich ear lacing.

Preparation for Exhibition.

Exhibition stock should be in condition nearly all the time. It should never be too fat, and should always be racy in appearance. Sometimes it is necessary to exercise the stock before certain shows, and various plans have been devised. The writer at one time had a kitten that was raised in a rabbitry and soon knew all of the rabbits and would often play with them. A different specimen that was a trifle too fat would be placed in a twenty foot runway and the cat permitted to chase it until it became tired. This system always brought good results. Other breeders place high hurdles and force their exhibition stock to jump them for an hour at a time. Proper feeding and care would make these exercises unnecessary. The stock must never enter the show room too fat or with distended abdomens.

It is easy to note the difference between the shape of the bucks and does, the bucks having large, coarse heads and bones inclined to be a trifle heavy, while the does will have nice, long, fine-shaped heads and better color as a rule. The does can be shown much longer than the bucks as the latter become coarse about the time they reach one year of age. Bucks at eight months are the proper age to be shown. The stock should be in perfect condition when entering the show room. Never send stock when in a heavy moult. The best possible kind of grooming for Belgians is a brisk rubbing with the hand each day. A drop of glycerine will help put a gloss on the fur; finish the grooming with a chamois or piece of velvet. Eggnog is also good to improve the coats and tone up stock that is worn out or has been shown too often. It is also good for stud bucks that appear to have lost their vitality. Teaching your stock to pose is another important point and is very easy to accomplish. Start with the youngsters when they are about four weeks old and keep it up each day. Place the left thumb under the left side of the jaw, take the left front foot between the first and second fingers, do the same thing with the right hand, see that its hind feet are close together and solid on the table, then lift up gently on its front feet and jaw and hold it a second before taking your hands away. Each time it poses for you, have a small piece of carrot for it. A little gentle scratching on the back of the head and around the ears will also assist you with the unruly specimens. Patience is needed in this trick. If the Belgians refuse to drink milk place a little in the bottom of the pan and place oats on top

and both will generally disappear rapidly. Salt in the oats once a week is very healthy for them, and plenty of hard, dry bread is also good. Exhibit your stock while it is young and send it in the exhibition shipping crates shown in another part of the book.

The Standard.

It may be well to explain the color a little more fully as it is a problem for old, experienced breeders to decide which is the proper color. The majority of breeders seem to think that the rich, glossy mahogany or deep, rich, cherry red is the right color, and that it should run clear to the skin. In years gone by it was no uncommon thing to hear this expression, "Red to the Skin," but such Belgians are rare today. The rich, wavy black ticking seems to be disappearing, also the hind feet are not the rich red color they were at one time. The Belgian should be a deep rich cherry red all over its body, head, ears, chest, down its flanks, its hind and front feet, and be covered with a rich wavy ticking. The shape should be racy and stylish, so when a person would span its body behind its front legs they could run their hand clear back to the hind quarters and find scarcely any difference in the size of the stomach. The legs should also be long and fine boned, and the body of good length. Then with a well shaped head, long thin ears and beautiful, large, bold, wild, hare-like eyes and you have a specimen beautiful to see.

The Belgian Giant.

A combination of fancy and utility rabbit. The big brother of the Belgian hare being the result of crossing the Belgian hare and Gray Flemish Giant.

The Standard.

Size—Large and imposing. 25 points. Cuts, 1 to 10.

Body—Long, broad; tapering off from hips to breast, does to have dewlaps evenly carried. 20 points. Cuts, 1 to 10.

Color—Red and as deep as possible with black, rich ticking. Belly color to be creamy. 15 points. Cuts, 1 to 10.

Head—Medium size, and shapely, color to match body.

Ears—Erect, medium thick, five and one-half to six inches long, and color to match body, with good ear lacing. Eyes large, bold, bright expression and brown in color. 15 points. Cuts, 1 to 15.

Forelegs—Medium, heavy boned, solid tan color; hind legs strong, heavy boned with as much tan on lower part as possible. 15 points. Cuts, 1 to 10.

Condition—Flesh firm, not baggy, fur close coated. 10 points. Cuts, 1 to 5.

Disqualifications—Crooked feet, white bars on front feet, wry tail, knock knees in hind legs, lop ears, off colored eye, ear canker, snuffles or any disease will be sufficient cause to eject the specimen from the show room.

Weights to be striven for in bucks and does:

2 months old.....	4 pounds
3 months old.....	6 pounds
4 months old.....	7 pounds
5 months old.....	8 pounds
6 months old.....	9 pounds
7 months old.....	9½ pounds
8 months old.....	10 pounds
9 months old.....	10½ pounds
10 months old.....	11 pounds
11 months old.....	11½ pounds
12 months old.....	12 pounds

This rabbit is bred to be used as a table rabbit and makes quick fryers and is very popular on the Pacific Coast. It certainly has a fine future as a table rabbit.

Angora Standard.

Quality of Wool—The texture shall be very fine wool; soft body.....	20
Feet and Tail to have thick wool.....	10
Length and Quality of Wool—Shall be of good length, two and one-half inches to five inches at four months of age.	
Body	15
Tail and Feet—Feet to have fringe of wool hanging from them.....	10
Head to be noble in appearance and covered with a good quality of wool.....	5

Chest and Head—Chest to have wool as long as possible	5
Ears—Short, stubby and erect; good quality of wool and ear tufts on ends of ears.	
Right ear.....	5
Left ear.....	5
Shape—To be cobby and have the appearance of a large white ball.....	5
Size—Over six pounds, with large bones in legs, and good, large, round head.....	10
Condition, Wool and Flesh—Wool free from mats and well brushed.....	5
Flesh—Firm and Solid.....	5
	100

Angoras are bred in white, blue and blacks or "smokes," as they should be called. Fawns and Grays also exhibited. White Angoras should have pink eyes.

The Angora Rabbit.

The Angora Rabbit is one of our most beautiful varieties. It is entirely different from any other on account of its length of coat. On nearly every other rabbit, the shorter and closer the coat, the finer the specimen, but on the Angora it is the opposite.

This variety is supposed to have originated in Asia Minor and Persia.

Some years ago the peasants of Switzerland and France are said to have bred them in large numbers for their fur. They clipped the fur and sold it to large



ANGORA BUCK

manufacturers, who made it into articles of clothing. We have no records of this being done of late years, and it would cost too much to raise them for the small profit which could be realized from the sale of their fur.

We find the Angora classified as far back as 1850, when one publication divided domestic rabbits into four varieties: The small tame rabbit, the large tame rabbit, the Angora and the Lop Ear. The Angoras have long, silky hair and are mostly white, black and white or gray and white. Their fur is valuable, the only trouble being to obtain it in large enough quantities.

Some people refuse to eat them because they look like cats, but they are fine eating.

Since 1850 the improvement in the Angora has been marked and the coat of the standard bred Angora of today is indeed remarkable for its length and qual-

ity. At one time the breeders strove for a silky coat, but at the present time we breed for a fine wool coat. The Angora is sometimes called the "lady's pet" and we find a great many lady fanciers showing them. This variety of rabbit has been kept back to a great extent, owing to the time and patience required to keep the coat in condition. When well groomed they are beautiful, but when in poor condition they are an object of pity. A mistake is often made by parents buying them for pets for their children.

Colored Angoras were plentiful in England during the last century, but have always been scarce in this country, and they have never been bred as extensively as the White Angoras, even in England. Angoras were seen in blues, blacks, grays and fawns at some of the English shows, but the difficulty experienced in breeding true to color kept the colored specimens back. If you were able to get one good solid colored youngster in a litter you were doing remarkably well, and you could find white feet, and white patches all over them, and in competition with the White Angora they were nearly always defeated. I would advise our American fanciers to avoid colored Angoras, for even the Blacks are only what we call Smokes.

Some people seem to think the Angora is very delicate and not able to stand the cold. This is not true, for the most successful Angora breeder in America has kept his finest specimens out of doors during the entire year. In another part of this book is described the most practical hutches and buildings. If it is impossible to build your rabbitry outdoors and have it open, try the following. Make your rabbitry any size, but

plan upon having double siding with paper between, then have your roof made of wood, with felt or heavy paper covering, and galvanized iron on top of that. It is very necessary that you have your roof high enough to give plenty of ventilation. Three or four feet above your hutches would be high enough, but the open, outdoor rabbitry will produce the most healthy stock.

The ideal hutch for an exhibition Angora should be about 2 feet square and 22 inches high. For breeding does, 4 feet long, 2 feet wide and 2 feet high. Let the floor slope to the front or back. It should be one inch higher at either the back or the front. If you slope it to the front you should have a tin trough to carry off the urine, but if you slope it to the back, then keep a nice supply of sawdust all along the back of your hutch. Cover this sawdust and the rest of the floor of your hutch with clean wheat straw, cut in lengths of about 6 inches. Keep a fresh supply of straw in the hutches all the time, both winter and summer. When you scrape out your hutches, sweep them out also, and then spray a little Mayhew's Germicide, which is a good thing for your hutches and stock. I would suggest good feeding and drinking troughs in order that the young and the mother may feed and drink at the same time without any effort.

Feeding and Breeding Does.

In the morning feed green food when you are able to get it. This may consist of dandelions, chicory, plantain leaves, cauliflower and carrots, for a change. You can also feed lawn clippings, but do not feed it wet or keep it in a bag or basket very

long, for it will become warm and give your rabbits bowel trouble. In the evening give them good, clean whole oats. Feed your stock as individuals and when you find certain specimens refusing to eat certain foods change to something else. Remove all food each day when you feed.

If your doe is ready to mate she should show a swollen or deep discoloration of the vagina or vent. If she fails to show this, and you are anxious to mate her, give her a handful of oats or barley which has been soaked in water for 24 hours and then has been out of the water for 24 hours. Feed this to her for two or three days and it will produce the desired effect. In mating your does, place the doe in the buck's hutch, and handle her carefully. During the gestation period, feed her green food two or three times a day, but do not stuff her or overfeed her with grains. A day or two before she is due to kindle she should have plenty of fresh water, bread and milk each day. From the time the youngsters are about four days old they will drain very heavily on the doe, and you will be safe in giving her all she will eat. Plenty of bread and milk will be one of the finest things you can give her. Keep plenty of clean wheat straw in her hutch, for if you are feeding green foods, the straw will help to keep her from having the scours and also keep her in better condition.

Remember you must get the early development out of the Angora if you are to be successful in the show room, and if your youngsters are not well developed when they are weaned from their mother they will be too small all their lives. To assist the doe in

taking care of her young, it is advisable to take her from the hutch about the third day after the young are born. Place her in a hutch where she will not see you handle the youngsters, and if you find three or four larger and stronger than the others, then destroy all the small ones. If they all appear about the same size, keep three or four showing the greatest width between the eyes and having the shortest heads. Some may think this is too great a loss, but remember that two or three well developed youngsters are worth more than a dozen poorly developed ones. Before you place the doe back in her hutch, place some tempting food, in the way of bread and milk and some green food which you have found she likes; this will tend to keep her mind away from the youngsters until the scent from your hand disappears.

If you find your litter scattered over your hutch and they are still warm, take each one and wrap it in warm flannel. Bring your doe into the house, place a cloth or apron over your lap, lay the doe on her back in your lap, and place one of the youngsters at a time to a teat of the doe; then place the teat in its mouth, and if they have any life in them you will soon see their little stomachs swell.

In winter it is well to place a bottle filled with hot water and wrapped in flannel, in the nest box the night the doe is due to kindle and leave it there for several days. You must keep everything clean in order to develop beautiful coats in both color and quality of fur. Always give does wheat straw for bedding, and if the doe does not pull much hair for

her nest, you may clip off some of the coat, and help her make her nest. Do not touch the bedding or change the nest for a week, then remove all of the nest and clean it out, and replace with new clean straw and plenty of sawdust. Be sure to always keep the straw cut in lengths of 6 inches.

In mating your stock never use an undersized buck, but a small doe can be used, for in many cases the larger does do not rear their young as well as the small does. Never use a buck or doe that drops one ear, or that fails to have the best of ear carriage, for it will show on the youngsters sure; it may not show in the first generation, but in the next one you will notice this weakness. If you have a large stud it will pay you to keep one buck with an extra fine coat, to use on the does having coarser coats. You will have your troubles keeping their coats brushed, but they make fine matings for you will get the medium fine coats on your youngsters. If you keep your rabbits outdoors in open hutches you can throw a piece of burlap over the front during the extremely cold weather, or when they are due to kindle, and for a few days after. Some breeders keep burlap over the front of their hutches during the entire winter.

You may have a doe some time that will not be a good mother and will eat her young. Do not kill her if she is a good brood doe. It may have been your own fault, in feeding her too much, causing her to be filled internally with layers of fat, which would cause an intense heat at the time of kindling, and would create an unnatural feeling. It is a mistake to feed heavily before or after breeding, for a great many

times your does will not mate when they are too fat. Do your heavy feeding after the youngsters are born. Remember, this is true not only with Angoras, but with every other breed of rabbit.

If your doe kills her young or refuses to mother them, breed her again and see that she is in just fair condition; feed her bread and milk a few days before she is due to kindle, and keep this up every day until the youngsters are weaned. The day the doe is due to kindle, place some nice green food before her and watch her until after she kindles. Some breeders have had to hold and force the doe to let the youngsters nurse. It may be necessary to breed the doe three or four times before she will mother her offspring properly; but if she is a good doe it will pay you for your trouble.

The writer has often been asked how to force the coat on the Angora. Outside of proper feeding and proper breeding, in the first place, it is impossible to force the coat. If you have selected the proper parents and they have the right blood you will have little trouble with the length and quality of the fur. The writer recalls a fine Angora buck owned in Chicago, with such fine blood that, by breeding him to common white rabbits, very fair looking Angoras would result. At the great Chicago show held January, 1916, over 50 beautiful Angoras were displayed and all but three of them were from this wonderful buck, which goes to show that the hardest battle lies in the blood of the parents and especially the sires.

You can help the coat some by proper brushing, which should be started when the specimen is about

six weeks old. A grooming table is necessary. This should stand three or four feet high, with a top about 16 x 20 inches, with a rim about two inches high running around the edge. The latter will keep them from sliding off the table or slipping. It is advisable to have two brushes, one for the bucks and one for the does. They should have short wire teeth set in rubber pads, and a smooth, hard rubber or bone comb will be of assistance in combing out the mats.

Place a piece of burlap or flannel on top of the table. Start brushing the head first, being sure to brush the tufts between the ears. Brush around from one side of the head to the other, and brush lightly, for you are only supposed to separate the hair, not pull it out by the roots. Brush from the roots out, brushing each way as you separate the coat. To brush under the chin and down the front, place the thumb of the left hand under the chin, and the fingers behind the ears, and gently lift up the chin. Brush the feet, back over the body to the tail, and end up with the head again.

The length of the fur should be two and one-half to five inches at four months of age; the shortest fur at the shoulders and the longest at top of hind quarters. If the coat fails to show an evenness at the outer edge, when blown out, you will find spots where the hair is notched, caused by too vigorous brushing. Light brushing often is what produces the best results. If the fur becomes badly matted your only course is to clip it off and wait for it to grow out again. When it becomes about one inch long, start brushing, and if your specimen is a good one,

it should be ready to be shown in about two months.

After brushing your rabbits, a little French powdered chalk scattered on their coats from a tin box with a perforated lid will keep them from licking themselves too much at a time, and will also improve soiled coats. It is not necessary to cut the mats from your breeding does, but just from the exhibition stock.

Do not groom or touch does that are about to have litters. Angoras will not stand steady exhibiting very long, and in the junior classes the does will make the better showing, and are often good enough to be entered in the adult doe class. In the adult class the bucks make the better showing for they hold their condition longer than the does. Remember the Angoras are at their best when young and that is the proper time to exhibit them. Never wash their coats for it will do more harm than good. Use the exhibition shipping cases described in another chapter when sending them to shows. Always sprinkle a small amount of French chalk on their coats before shipping and the moment they are returned. Start brushing them at once. If you have your Angoras in a rabbitry with other rabbits, always place the Angoras in the top row of hutches, so no droppings will fall through on them.

The coat should be as long, fine and soft as possible, and so uniform that the rabbit will have the appearance of a beautiful large white ball. The fur on the shoulders and chest is often so long and thick that when brushed back it nearly hides the head. The feet furnishings and head furnishings add to its

beauty, as do the tufted ears. The heads should be well rounded for small narrow heads are worthless for breeding purposes. The Angora should be of good size and cobby in shape. We find more small ones than large ones. The condition must be perfect for exhibition purposes.

Himalayan Standard.

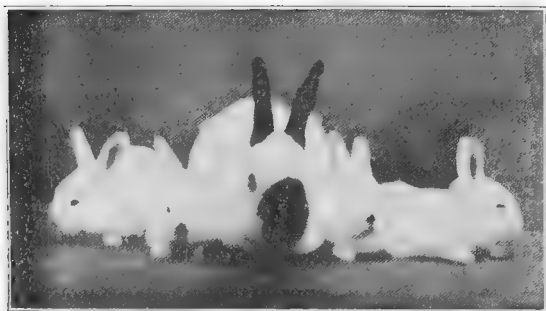
Hind Leg Color—The “boots,” as they are sometimes called, should be rich black and extend up the leg as far as possible.	
Right Hind Leg.....	12.5
Left Hind Leg.....	12.5
Front Legs—Boots should be the same as on the hind legs.	
Right Front Leg.....	7.5
Left Front Leg.....	7.5
Ears—Should be solid color, with clean cut white between.	
Right Ear.....	7.5
Left Ear.....	7.5
Smut on Nose—Round, solid and well up between the eyes.....	
	14.
Tail—Solid color	6.
Weight and Shape—Four pounds; body long and slender; does to be free from dewlap	
	11.
Condition of Flesh and Fur—Flesh to be solid, and fur to be fine, soft and close.....	
	14.

Himalayans at birth are pure white, and start to change color when two weeks of age.

The Himalayan Rabbit.

This variety is thought to have been found in a wild state in certain localities, north and south of the Himalayan mountains. In the early history of the rabbit it was described under the following different names, "Egyptian Smut," "Antwerp," and "Chinese Smut Nose Rabbit."

Great improvement has been made in the color



HIMALAYAN DOE AND LITTER

Owner, Albert Sherwood, 59 Main Street, Nyack, New York.
Youngsters three weeks old.

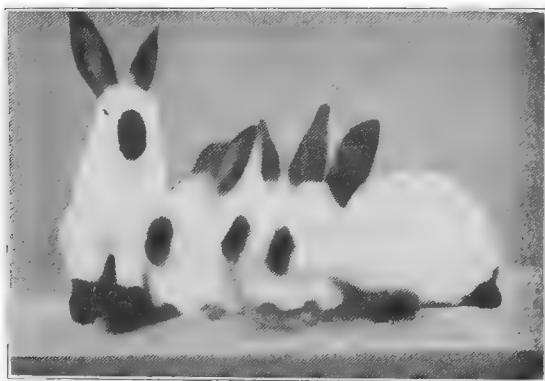
markings, and it has become very popular in America. At the present time we find more Himalayans being bred in America than any other fancy rabbit. This is another variety upon which fakers have worked their arts to the extent of dyeing certain parts to make them look perfect. They have several features that do not appear on any other breed of rabbit. Their

color changes from several different colors of gray to black, during the different seasons of the year, and this alone would clearly prove that they have certain blood not found in any other variety. Many a poor fancier has worried for days, thinking his very best specimens were going to lose their colors, and the writer has read some amusing letters from fanciers who were sure they had been swindled in buying their stock.

Another peculiar thing about the Himalayans is the fact that at birth they are without any color markings at all, and to all appearances just common Whites or Polish, and the writer has seen a great many letters from fanciers who had purchased Himalayan does bred, and when the youngsters were born without any color markings, the fancier thought his doe had been mated to a Polish and requested that his money be returned. In a few days, however, the color markings will begin to appear, faintly at first, but gradually becoming stronger, and at the age of three weeks, small spots of coloring on the noses, and colored hairs in the feet will show. The markings at first will be of a smoky color, and it will be about six weeks before the real black appears. After six weeks, improvement will be rapid. You will notice the appearance at different ages in the illustrations. The Himalayan was first "boosted" in the United States by the A. F. F. A., and later by the National Pet-Stock Association of America. It no doubt owes much of its popularity to its fur, which is being made into beautiful sets of furs. The demand for Himalayan fur in this country will be

great during the years to come, and the Himalayan fancy is sure to grow rapidly.

The skins should be taken from the rabbit between October and March, when the fur is in full bloom and free from moult. From seven to eight months is the best age when the fur is to be used. Great care



HIMALAYANS

Owner, G. P. Willg, 1810-12, Vinton Street, Omaha, Nebraska
Youngsters six months old.

should be used in removing the skins, for often you will render them worthless by being a trifle careless in removing and preparing them. Place the skins in the shade, stretched in a semi-circle, with a piece of green wood, to avoid heating and creasing. They should be stuffed out before being hung up to dry. If you use a little extra care in preparing them, it will increase their value enough to repay you for your extra work. The Himalayan breeders should co-

operate in "boosting" the fur proposition, to which this rabbit is so well adapted.

Housing.

When it comes to the question of housing rabbits, one finds many different opinions from the breeders throughout the country. Some favor inside rabbitries, some outside lean-to rabbitries, while the majority seem to favor the outside rabbitry with open hutches, and blind attachments which may be entirely closed at different times. If you use inside rabbitries, it will be necessary to have plenty of overhead ventilation, with a double roof and sides, as described under the head of Angoras. If you use the outdoor open hutches, which are fully described elsewhere, it will be advisable to build your hutches under shade trees, with blind attachments, in order that you may make your hutches semi-dark at times for the youngsters and exhibition stock, as the sun will fade the matured stock and retard the color markings of the young. When the youngsters are about eight weeks old, close up about two-thirds of your breeding hutches, making them semi-dark, and you will notice a great improvement in the development of the color markings. This method should also be used with your exhibition stock.

Use the same sized hutch as for the Dutch. Great care should be used to keep the hutches absolutely clean and well drained, for the Himalayan is very easily stained, especially their feet. They often come into the show room showing beautiful foot markings,

but covered with hutch stains. Their bodies are also easily stained, especially by urine, which must be guarded against.



HIMALAYAN DOE—"CHICAGO GIRL"

Owner, G. P. Wiig, 1810-12, Vinton Street, Omaha, Nebraska
First Himalayan Doe, Chicago, 1916.

Feeding.

Himalayans may be fed in the same manner as any other rabbit, with the exception that they are a small rabbit and not a heavy feeder.

Follow the instructions on feeding as described under the Angora and Belgian. Separate your litters in the same manner as you would any other breed.

Breeding.

The same care should be exercised in breeding as in breeding English, Dutch, or any other fancy marked rabbit. It is necessary that both the bucks and does have perfect coats when bred. If they are not in perfect condition, you must expect to find poor, broken-coated youngsters in each litter, and once you start broken coats in your strain, you will find great difficulty breeding them out. Select the best shaped and best marked specimens, and those having the softest and most silky coats, and you will have made the proper start. Correct breeding at the proper time of the year will secure you the best results. Spring breeding is the most satisfactory, for if you breed stock in winter you must place hot water bottles in your nest boxes when the youngsters are due, and your color markings will come slower, which is a bad thing, as the markings should be crowded as much as possible on the youngsters. In winter breeding, great precaution should be used in keeping the hutches nice and warm, but never use artificial heat, as it has never proven satisfactory. The youngsters should be well fed, and to help crowd the ear color, use a little cocoanut oil and carbolized vaseline in the palm of your hands, and rub on the ears with a gentle friction, but it must be lightly, for you are liable to rub the skin off. Your youngsters should be separated at from three to four months of age. In selecting breeding stock, never use a buck or doe that has eye stains. This is a smoky spot or half-circle under the eye or just beneath it. These stains will disappear

at times, and in one moult they are liable to appear and go away with the next. It is very uncertain and is nearly always caused by the same failing in the parents. Be sure also to choose small, snaky shaped specimens, for the Himalayan should never be a large rabbit and should have the snaky shape to look right.



HIMALAYAN BUCK—"JACK"

Owner, Lewis Griffin, 812 East Costello Street, Colorado Springs, Colorado. First, Colorado Springs, 1915.

Color.

The body color of the Himalayan should be a beautiful white, with color markings of dense, velvety black. The more dense the better. A great many

specimens have a miserable brown tinge, which hurts their appearance very much. This dense, black, velvety color should appear on all four feet, tail, nose and ears. The nose marking is very important and should be large and well rounded, and come up even on the face between the eyes and cut clear around with no ragged or uneven edges, and dense black in color. A great many noses are weakly marked on the edges. The ears should be entirely black and free from white hairs. They should cut off square on the white, and appear as though they had been set right on the white color. They should be short, neat, and tapering to the tips and set fairly close together and not carried apart. The feet markings or "boots," as they are often called, should extend to the top of the leg on all four legs, the higher up the better, and should cut off clean. They should be dense black. The markings on the hind feet are the hardest to produce, so good hind feet colorings receive the most consideration. Many specimens have the feet markings full of gray hairs, which hurts their appearance very much. The tail should also be dense black and straight. The eyes should be pink, bright and bold, and free from eye stain or circles. Some specimens are shown with these eye circles or spots, which are of a smoky color, and they are always passed very quickly by the judge. Shape is another important point. Some specimens appear large and stuffy, and have very little of the true Himalayan shape. They should have a snaky shape and weigh about four pounds. The coat is another important feature that is often overlooked. It should be carefully considered, for many specimens lose out

on coarse, wiry fur that is badly stained. The coat should be pure white, silky, and free from eye and hutch stains. It looks very bad to see a finely marked specimen come into the judge's hands with foot and body stains caused by poor hutches and improper attention. Their coats should be free from moult and in perfect condition.

Preparing for the Show Room.

A little rubbing with the hands each day, and light brushing is all that is needed to put them in perfect condition, provided you have taken the proper care of them in the hutches. It is often to the advantage of the exhibitor to show his adult stock as near six months of age as possible, for it will then have the best color and shape. Adult stock will seldom last over a year if it has been shown frequently. The large winners are usually under one year of age.

English Spotted Rabbit Standard.

Color—Blue, black, tortoise or gray. Color to be clear, and the markings to be the same size, color and in the same position on both sides. The color of the fur outside of the markings to be white.

Right Side.... 2.5

Left Side..... 2.5

Smut on Nose—To have the appearance of a butterfly in shape.

Color 5.

Shape	10.
Eyes, Circles and Cheek Spots—Eyes bright and bold.	
Solid colored circle under right eye.....	4.
Solid colored circle under left eye.....	4.
Dot on right cheek to be cut clear from eye circle	3.
Dot on left cheek to be cut clear from eye circle	3.
Ears—Not over four inches in length, good carriage	4.
Color—To be solid, clean cut, and free from white hairs	4.
The Chain Markings—Named on account of link like formations, start on top of the neck, near the base of the ears, and run in a slanting direction toward the loins. They should start with one dot and run in two rows.	
Right Side	6.
Left Side	6.
Markings on Loins—Appear to be a continuation of the chain markings, only the spots are larger. No plain patch of white hair should appear between the ending of the chain and the starting of the loin markings.	
Right Side	6.
Left Side	6.
Teat Markings—Should be six small dots on the white belly.	
Right Side	3.
Left Side	3.

Markings on Legs—A small dot appearing on elbow of each leg. The front legs are the most important.

Hind Legs 4.

Fore Legs 4.

Saddle Markings—A line commencing near the base of the ears and running in an unbroken line on top of the back to the tail. It should be very narrow at the start and widen out near the rump and again become narrow at the tail. It should have the hair extending out from the edges in the form of a herring bone.

Saddle 5.

Size and Condition—Six pounds; flesh to be firm and solid. Fur soft and free from moult.. 10.

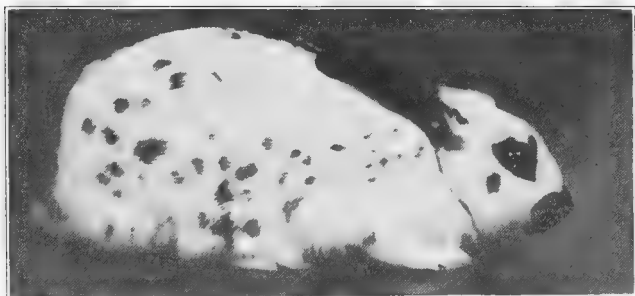
Herring Bone 5.

100

The English Spotted Rabbit.

The English Spotted Rabbit is supposed to have originated in England from the common English rabbit about 1885. England gets all the credit for popularizing and breeding this beautiful rabbit up to its present high standard. The greatest improvement in the English really started since 1891, at which time the National English Rabbit Club was formed. The A. F. F. A. was the first to try to popularize the breed in America, but it has been uphill business from the start, on account of the difficulty in breeding them

anywhere near the standard. It is the hardest rabbit we have to breed true to the standard. One breeder states that he bred 150 before he was able to produce one good enough to place on exhibition. But he started with poor stock. It only shows, however, what a difficult proposition it is to breed them to the standard. A good marked English is a pleasing sight to see. It requires much patience and study to produce them and it may be that our American fancier becomes too easily discouraged.



BLACK ENGLISH BUCK

Owner, J. H. Shannon, 538 Bergen Ave., Jersey City, N. J.

They are bred in blacks, blues, tortoise and grays, but only in blacks and blues to any large extent in America. Owing to the difficulty in breeding the color markings and the many failings, it may be well to call your attention to the accompanying illustration, which shows some of the common failings in this rabbit. In describing the points the nose should come first. It should be butterfly in shape, and the

tail of the butterfly is usually called the "nose fork." A perfectly marked nose is very rare. One of the common weaknesses is the white color running into the wing of the butterfly, and spoiling the even circle of the wing. Some have it on both wings, while on some it is more marked than on others. Never purchase stock with this failure. A disqualification is the "putty nose," which is a small white or flesh colored spot appearing in various sizes on different specimens, but nearly always on the end of the nose. There is only one use for such a specimen and that is as meat stock. Poor "nose forks" are very common. Some have none at all, while others have crooked ones. This is also a very bad point. White hairs in the nose is another bad fault. The eye circle and cheek spot come next. The eye circle should be a perfect circle or oval around the eye, and not too wide. The cheek spot should be under each eye, but not touching the eye circle. There is no record of a single specimen having been produced with perfect eye circles and cheek spots. Some have heavy eye circles without an eye spot, while others have circles that are not uniform in size. The illustration will show you very plainly how the failures appear. There should be but one spot on each cheek. Some specimens have several cheek spots. The ears come next and very good ears appear on the different specimens. They should be solid in color and free from white running up into the ear. The ear color and white at the joining should cut off sharp. Pale colored ears is another fault usually found on blues and tortoise. Flesh colored tips are also found quite

often. The saddle should be an unbroken line, starting at the base of the ears, on top of the neck, and running along the top of the back to the tip of the tail. It should start narrow at the ears, widen out near the center of the back and narrow again at the tip of the tail. Broken saddles are often found on specimens. The herring bone is the part of the saddle that is very hard to produce. It is small cuts of fur extending out from the saddle at regular intervals. A poor herring bone will not disqualify a specimen because nearly all have poor ones. A good saddle and herring bone is a pleasing sight, but very hard to produce. A wide saddle is another bad point that should be bred out. The chain markings should start at or near the base of the neck and run slanting to the edge of the belly, about half way between the front and hind quarters. It should start with one small spot or dot and end with three in perpendicular order. They should resemble chains and be even on each side of the body. The markings on the loins should start where the chain markings end, with no patch of white between. It really should be the continuation of the chain markings. The spots area is a trifle larger, and should run in a slanting line from near the edge of the belly to within one inch of the saddle at top of the loins. These spots should be uniform on both loins, and free from white hairs. A small spot should appear at the elbow or point of each leg. The front leg spots are considered the most important. There should be six teat spots and the other part of the belly white. They should weigh about six pounds. Condition is another very important thing.

Like the Dutch, the good youngsters can be readily distinguished at birth. They may be fed and housed **the same as the Dutch**. In breeding them the same care should be used in selecting your stock. Purchase the very best marked stock you can find, for cheap, poorly marked English are poor stock to make a start with. Great care must be used in selecting equally marked stock for breeding the English. Above all, do not become discouraged, but keep plugging right along and by careful selections and study you can succeed.

In grooming your stock for the show room, a good hand rubbing with a few drops of glycerine is the best preparation you can use. Do not attempt to show English in a moult, but have them in good condition.

Dutch Rabbit Standard.

Color—Black, blue, steel gray, tortoise and tortoise shell. The color to be solid and uniform, over ears, cheek, and body, from saddle line over back to tail and down hind feet to feet stops.

Ears, Cheek and Body..... 5.

Tail and Hind Legs..... 5.

Saddle—A white collar, starting just clear of the front legs, running to the ears and in clean cut lines on top and underneath body.

Top Part 5.

Right Side 5.

Left Side 5.

Underneath	5.
Blaze on Face—The white color appearing in shape of a wedge, rounding just clear of the whiskers and becoming narrow at the ears, where it has the appearance of a white cord.	
Blaze	10.
Small white mark passing through ears and connecting with white belt.....	5.
Ears and Neck—Erect, color to be solid and same as body.	
The color around base of each ear should be solid and not run into the white. The lines all to be clean cut.....	20.
Eyes—To be a rich hazel in blacks, and to match the color of the body in other colors.	
Right Eye	2.5
Left Eye	2.5
Stops on Hind Feet—Clean white markings starting about one and one-half inches from the toes and should be cut off even on both feet.	
Right Foot	7.5
Left Foot	7.5
Size and Shape—To be under five pounds. They should appear lively, frame compact and limbs a trifle short.....	10.
Condition of Flesh—Flesh to be firm and solid, the fur very close, even and shining.	
Condition of Flesh.....	2.
Condition of Fur.....	3.

100.

Dutch should be disqualified for the following weak points: Off colored eye, known as "wall eye," and weighing over five and one-half pounds. The majority of standards cut them 15 to 20 points. In strong competition, 20 points cuts will disqualify.

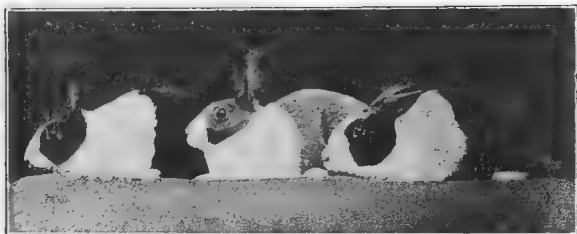
This variety of rabbit was very slow in becoming popular in America, and for years the only place you could see them was at eastern shows. During the last two years, however, they have become very popular, appearing in all of the large shows from coast to coast.

The Dutch are supposed to have originated in Holland, where they were bred in large quantities for meat. At one time they were known as the smallest rabbits in the fancy. At the present time they should be about the size of Tans and Himalayans. They are very popular in England and it is not uncommon to see \$50.00 change hands for a good specimen. The Dutch possesses such an attractive appearance that it becomes a favorite wherever shown. Faking is sometimes practiced in preparing for exhibition. It is quite a temptation to dye a small spot and pluck a few hairs from another spot. Strict judging soon ends this kind of work.

The Dutch are very healthy and hardy and can be raised under almost any conditions. They make fine foster mothers and are also fine eating. Color is the most important. The Black is the most popular, both in America and England. It will take considerable breeding to bring the black anywhere near perfection, breeding blacks to blacks for any length of time the

beautiful dense black color is lost. The color should not show any bronze tinge or white hairs, but be dense black. To improve the color and hold it, crossing a blue buck once in a while is necessary for good results, and crossing a black buck to a blue doe brings good results. The black blood should always be the stronger in these crosses. Too much blue blood is liable to make the eye color too light.

The Blue comes next in point of popularity, and is much harder to breed to color and will also fade



TRIO OF DUTCH—Black, Tortoise and Blue
Owners, Gibson Bros., 1045 West Warren Ave., Detroit, Michigan

out much quicker than the black. By crossing the black buck with the blue doe you will then strengthen the blue color. The blue color is a sort of deep slate blue. Only two or three good colored blue Dutch are bred in this country in a whole year and they will not hold their color for more than eighteen months. Some of the palest youngsters develop into the best adult ones. Watch the ears and eyes of the blues very carefully, for some of them have pale colored eyes containing specks, and ears that are pale

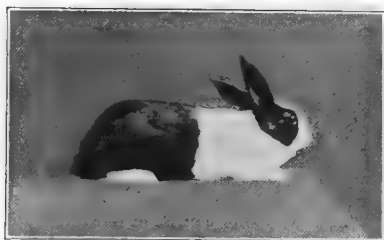
and do not match the body color. The tortoise comes next and there are just a few Dutch breeders who are paying any attention to the tortoise. They have shown very little improvement in color. The color should be a bright orange, with nearly black shadings. The shadings should be on the sides of the body, becoming darker along the flanks, and brighter near the shoulders. The forelegs, chest and back should be shaded, and the jaws, cheeks and ears should be dark. The tortoise suffers from dark hairs coming through and spoiling the beautiful orange color. They also have weak colored ears. It is necessary to have a stud buck with deep, rich colored ears, also a good body color, and free from white hairs.

The Blue Fawn should not be mentioned at all, as it is a sport and is sometimes used in breeding tortoise. The steel gray is one of the most popular Dutch in England, but there are only a few specimens in this country. A prize winner in the steel gray is very hard to produce, but when you succeed in producing it, you have something to feel proud of and a color that is more lasting than any of the others. In a class of the steel gray Dutch it is possible to see several different shades of steel gray, such as sandy gray, light gray and steel blue gray. The dark steel gray have too much black on their feet and black ears. Medium steel gray is the proper color. To produce it, blue gray does are crossed to pure colored steel gray bucks. Steel grays should show steel gray from their first coat. The breeder often becomes discouraged by finding four or five different colored youngsters in his litter, but they

will come, no matter how hard one studies and opposes their coming.

The Dutch should weigh between four and five pounds. A Dutch of good type can be plump and fat and still retain its shape. They should be short in body, for a Dutch with a Belgian body and type loses its beauty at once, and must be starved to keep down its weight. Watch for specked eyes and for eyes that do not conform to the standard.

Color should always be a strong point in breed-



BLACK DUTCH BUCK
Owner, Hale Prather

ing does, and those of correct color should be kept in preference to does having good markings and other points.

Face Blaze: A white, tapering wedge covering the nose, and ending just beyond the whisker beds, tapering up to the ears, dividing each cheek and ear and having a cord-like line running between the ears and joining to the white part of the body called the saddle. Each cheek should match the body color, and run down to the jaw bone, not running under it or cutting it off from the white saddle. The

blaze should not be wide between the eye, nor taper off all at once. It should appear as a perfectly round sweep, the colors not running into each other. A perfect head is beautiful, but hard to produce.

Neck and Ears: The base, or starting spot of each ear on the neck should be the exact color of the body, and cut perfectly clear, without the colors running together. The white neck color should run down between the ears, wedge shaped into the small line connecting the blaze and the neck. Many specimens have poor necks and fail to have the connecting line between the neck and the blaze. The ears should be short, free from white hairs and match the body color.

The saddle is the part of the rabbit which covers the front feet, chest, throat and body, just clearing the shoulders. The circle should be perfectly round and clear cut, not running into the body color. The under part should be perfectly straight, and not touch the front legs. A good way to tell if the under cut is free from the front legs is to straighten out the legs with your hand. The white color should not run into the belly color, but cut off clear. Perfect under cuts are very scarce.

Feet Stops are the beautiful markings appearing on the ends of the hind feet, and should be white and run back about one and one-half inches from the end of the toes. They should be perfectly round, clean cut and alike on both feet. Eyes should match the body color, but hazel in blacks. They should be free from specks and "wall eyes." Wall eyes are off

colored eyes, generally very pale blue. A speck is a small spot of color in the iris.

Housing and Feeding.

The Dutch is such a hardy rabbit that it thrives well in any kind of a rabbitry, either outdoors or indoors. Keep them in hutches that are free from dampness and draughts of air and they will cause little trouble to anyone. They should be fed the same as Belgians. See directions in chapter on Belgians.

Breeding.

Great care should be used in choosing your stock for breeding. Do not breed unless they have a good coat and then choose bucks that are the most perfectly marked ones you can find, for if they are imperfectly marked the youngsters are liable to be very poorly marked. Poorly marked Dutch will never produce winners.

It is easy to tell the first day after the young Dutch are born which will be the good ones and which ones you are going to eat. It is best to have several stud bucks and try them to the different does until the right one is discovered, then continue to breed that doe to the same buck. Never let the doe nurse over four or five youngsters at a time. In taking them from the doe, follow instructions contained in the chapter on Angoras. The Dutch subject is a very interesting one, and the harder you work with the Dutch the more pleasure you derive when the correctly marked ones commence to make their appearance.

Standard for Lops.

Length and Width of Ears—Any length of ears.	
Right Ear.....	12.5
Left Ear.....	12.5
Width of Ears—Any width from widest place on ear.....	19.
The ears should be stout, strong and free from blemishes	9.
Eyes—To be large and bright.....	6.
Shape, Size and Tail—Body to be large and arched. Bucks to weigh about 10 pounds and does 11 pounds and over. Tail straight, not wry tail.....	14.
Legs and Feet—Good size and straight.....	6.
Color and Condition—Any color. Flesh solid, and in healthy condition.....	21.

100

French Lops are judged by the same standard. Their ears are shorter and not so wide as the English.

Lops—English and French

In America we have both the English and French Lops. The French are much smaller in body and have smaller ears. They are bred in Selfs and Broken Colors, the same as the English Lops. The Lop Ear is one of the oldest rabbits in the fancy and can be traced back for more than one hundred years. This breed was long popular in England and was known for years as "the

rabbit king of the fancy." It is becoming quite popular in America. It is sometimes spoken of as "The hot house rabbit," as it was formerly supposed that they must be raised in a hot house to do well. There seems to be no complete record of how or where the Lops originated, but they were exhibited for prizes in London as early as 1850. The Lops have been greatly improved during the past forty years. At one time they were divided into the following classes, "Horn Lops," when the ears stood out from the head, like a pair of horns. "The Double Lop," was applied to the rabbit having the proper pull of the ear. "Oar Lop," when the ears stood out at right angles. "Half Lop," one ear hanging properly and the other being carried erect. They also had separate classes for the self and broken colored specimens, instead of as at the present time. We have records of Lops with ears $28\frac{1}{2}$ inches long. The improvements in Lops have all been made by the English fancier. The color is divided into Selfs and Broken. The Selfs consist of black, gray, blue, fawn and yellow. The broken colors, of any of the above colors, together with white. The color is very important in the broken colors. The saddle should be a dark color and from this the color should run in two lines or large spots to the ears, which should be solid dark color. The nose and skull should be dark and a dark rim should encircle each eye, the remainder of the Lop being pure white. The head markings are very important because a fine Lop is admired by the front view. The butterfly nose adds to its beauty.

Housing.

This variety cannot be bred out of doors in a severe climate. In the warmer states it can be bred in the open outdoor hutches, but in the severe climates they must be housed in the very warmest rabbitries. The rabbitry should be made of a good, well matched siding, then a layer of paper or a space of three inches filled with sawdust, then an inside layer of matched siding. The roof should also be made of lumber on the inside, then a layer of tar paper and metallic roofing on the outside. This will keep all dampness and frost from the roof. The hutches should be four feet long, twenty-two inches deep, and twenty-two inches high. The hutches can be made of open mesh, but a covering of burlap should be placed to drop down over them during cold weather. Lops should never be raised in crowded quarters or with other rabbits, for it requires all a fancier's time taking care of the Lops. Good, clean hay and sawdust in the hutches at all times and the hutches cleaned out three times each week will produce healthy stock. At one time it was a popular idea that plenty of manure, left in the hutches, would result in producing a steam, which, in turn, would help produce longer ears, but that theory has been discarded for some time.

"Mayhew's Germicide" should be used for a disinfectant.

Lops should have plenty of warmth and sunlight. The warmer states should produce the longer ears. Nothing but summer breeding should be attempted in

parts of America where severe winter weather is experienced.

Feeding.

Lops may be fed the same food and in the same manner as described in other chapters. They should



**ENGLISH LOP SOOTY FAWN BUCK
"FIRENZE PETER PAN"**

Owner, M. Robert Guggenheim, Babylon, Long Island, N. Y.

Length of ears, 26 inches; width of ears, $6\frac{3}{4}$ inches

First and Special, Best Lop in show, New York City, 1915. Special for Second Best rabbit in show, New York City, 1915. First Boston, 1916. First, Indianapolis, 1916; also cup winner best Lop in the show

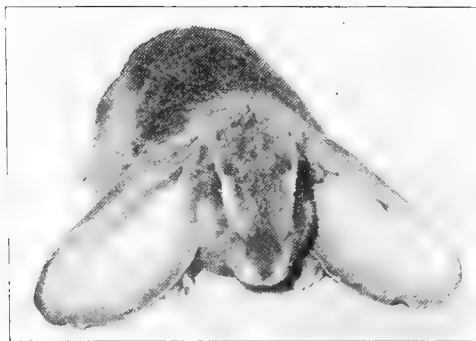
have more warm meal mashes and plenty of bread and milk.

Breeding.

In breeding Lops, the fancier will experience great difficulties and should always use Dutch foster mothers. Never permit a Lop doe to raise more than three young-

sters in a litter, for they are large and clumsy and not suited to raise more than three at a time. Neither is it advisable to let the foster doe raise more than three to a litter.

Great care must be used in keeping fleas and insects out of the Lops' ears. If they become prolific, they are very hard to get rid of. They usually start around the ears and other parts of the head. The fur should be combed often and a good insect powder dusted in. Dip



FRENCH LOP DOE—"JOHNSON'S WONDER"

Owner, Roland T. Johnson, 5616 South I Street, Tacoma, Wash.

a brush in kerosene oil and shake it over the infested parts before brushing. This will aid in getting rid of the insects. In breeding Lops, the best specimens that can be purchased should be used. They should have ears close to $23\frac{1}{2} \times 6$ inches. Any color will do. The length and width of the ears should be the first consideration, size and general type should come next. Both the doe and buck should be fine, large, healthy specimens, their coats free from moult and in the pink of condition. Try to purchase both the buck and doe of

well established strains. Fawns, sooty fawns, and tortoise shells are usually inbred to produce the best colors. Good sooty fawns and black and white bucks are good colors to keep for breeders. It is necessary to keep a close watch on the bucks when breeding, for if the bucks or does are of an ugly disposition and try to fight each other, a bite or scratch in the ear is almost sure to result in blood poison.

The doe should have a large nest box and the day she is due to kindle a nice, tempting meal of green food should be given her, also fresh bread and milk, and a dish of fresh water. See that she is in a quiet place, and not disturbed. Feed the youngsters and the doe weeks of age. Do not handle the youngsters until they are four weeks of age, when they can be gently handled and the ears massaged into the proper position. In case of stubborn ears in promising stock, take a little beeswax, warm it, and rub it on the ear about two inches from the head. Take a broad piece of tape, covered with the wax, and tie the waxed tape in the center of the waxed part of the ear. It is not necessary to tie it very tightly, for the wax will hold the tape in position; then pull down the ear and place the tape under the throat and tie to the other ear, which should also be waxed. This should bring the desired results in about twenty-four hours. At the age of four months the ears should measure eleven inches, and if they fail to come up to this length, they will never amount to much. At the age of five months, each ear should be massaged three times each week. **They should be massaged from the root to the tip, but not in a rough manner.** Vaseline rubbed

well into the ear will help the operation. In measuring the ears, take a thirty-inch rule, hold it in front of the ears. Take the flat part of the left ear and hold firmly on the rule between the thumb and forefinger. Pull this right ear along the rule as far as it will go, stretching it slightly, and using care that the other ear does not slip. To secure the width, lay the ear out at its widest place, then stretch out to the full width along the rule. Send Lops to the show room with the coats in full bloom and the flesh in the pink of condition.

Black and Tan or Blue and Tan Standard.

Color—Blue or black, rich, uniform color. Tan to be a rich deep shiny color.....	24.
Size and Shape—Not over four pounds. Similar to Dutch in shape.....	9.
Eyes—Large, shining, rich, hazel in black and deep blue in blue.....	6.
Ears—Short and neat, color to match body color	9.
Tan Markings—Back feet.....	11.
Front feet	6.
Inside and outside edge of ears.....	6.
Color back of ears in shape of triangle....	6.
Side, belly and chest.....	11.
Cheeks, eyes and nose.....	6.
Condition—Flesh solid, and coat short, fine and silky	6.

100.

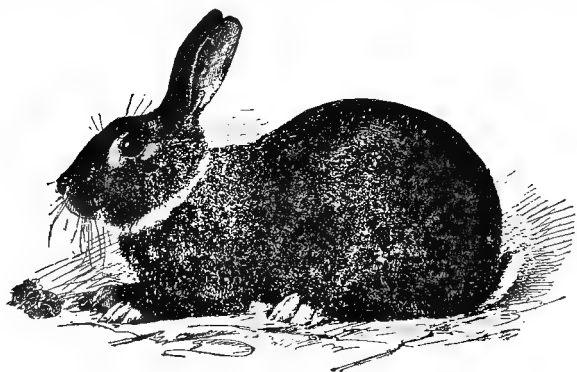
Tans—Blacks and Blues.

The Tans must be classed as new rabbits. There seems to be a mystery as to their origin. One thing seems certain and that is, they were made in England, for they show several of the wild English rabbits in their make up. During the years 1901 and 1902 the Tans had considerable trouble, as some fanciers wanted to make them weigh five pounds and be racy while others wanted them to weigh four and one-half pounds and be cobby in shape. This trouble resulted in two different Associations and a weight of from three to four and one-half pounds was adopted as the official weight. The Black Tans were the first Tans to be shown. The Blues came from crossing a Black buck to a self-sooty fawn short eared doe, and mating the youngsters from this litter, which produced the Blue and Tans.

It is a beautiful rabbit and one which attracts a person at once. With their outer coat of shining black or beautiful blue, and the under shadings of rich tan, they appeal to all lovers of fancy rabbits. They are very healthy and can stand a great amount of hardship, but like the Himalayan, the sun rays fade them.

They keep their shape better in small hutches. They should be fed the same as the Himalayans. In starting to raise Tans it is necessary that the very best that can be bought should be used, for the tan markings are the first to wear off with age. The best time for exhibiting them is between the ages of seven and twelve months.

Crossing Black bucks with Blue does makes good stock. A couple of good Blue does with one good Black buck make a good start. The Tans, when born, show very little of the markings, but they generally appear in about five days. Youngsters with "putty noses" and white toes should be killed. When about nine weeks old destroy any with pale tan color, barred colored feet, or a great many brindled hairs showing with the body color. Blues that show light in body



BLACK AND TAN BUCK

color when young should never be destroyed, as they make the best color at times.

The greatest trouble in breeding Tans is to keep the Black and Blue color evenly distributed with the Tan. In choosing the proper color, remember that they should be a rich, shiny black, free from all foreign colors, or a beautiful slate color blue comparing with a Persian cat. The Tan should be rich, bright and deep, entirely free from bars or sootiness. The fur

should be short and silky. The correct description from the English fancier gives it as having Black or Blue on the head and cheeks extending to the point of the nose, with eye circles of tan under each eye. The neck, shoulders (excepting spots close to the ear), saddle, back, sides, upper part of tail and rump should be Black or Blue. It should be entirely free from brindling, except sides of rump should have tan hairs. The under part of tail, flanks, belly, chest, nostrils and jowls should be a beautiful, rich, deep tan, free from any patches of body color. The part of the shoulders nearest the ears and the back of the neck should also be tan, forming a sort of triangle, narrow at the back and wide near the ear. The tan color of the neck should meet the tan color of the chest, a collar around the neck. The ears should be short, fine and rounded at the tips and carried well together. Shiny black or rich blue on the outside and the inside to be a rich tan, the colors to match the tan and body color. White tips of ears or white hairs on ears are not allowed. The hind legs should be a rich, glossy black or blue on the outside and a bright, deep tan on the inside, appearing in an unbroken line up the leg. The toes should also be tan. The tan should be free from patches of body color. The front part of the front legs black and free from brindle hairs; the back parts and toes rich tan. In preparing for the show room they should be well groomed and their coats in perfect condition when placed in the show room.

The Havana Standard.

Color—Rich shining brown with an under color of weak gray.	
Body color.....	20.
Color of head, feet, chest and tail.....	15.
Ears—Four inches in length, small, and good ear carriage	5.
Ear color—To be solid color and match body color	5.
Eyes—Large, gentle expression, to match body color and show a red light in the pupil.	
Size and shape of eye.....	2.5
Color of eye.....	2.5
Size and Shape—To weigh under six pounds.	
Small fine head, fine shaped body.....	20.
Feet and Legs—To be small, straight and neat, with brown toe nails.	
Front feet	5.
Hind feet	5.
Condition of Flesh and Fur—Flesh to be solid and in healthy condition.....	3.
Fur—To be close, fine and shining; fine quality	17.

100

The Havana.

This is one of America's newest rabbits, having been imported from England about the year 1913. It originated in Holland and was perfected in France, and then exported to England and other countries. The first

Havana was really an accident. In the year 1898, a common black and white doe became the mother of the first Havana. The sire was unknown. It is the only rabbit having a fiery red eye, and when crossed with the Himalayan rabbit, the result is black rabbits and no red eyes, which only adds to the mystery of their make up. They were first called "fire eyes." The body color was good and eyes red, but poor feet, a great many of them being white. They were also called "castors," and finally named Havanas, by the French, and then adopted by the different countries. By crossing them with Black and Tans, the white feet disappeared and they have been breeding true to color ever since.

Owing to there being very few good bucks in America, it is necessary to inbreed them in order to produce the best stock. By breeding the son to the mother, and the best daughter to the father, then later breeding brother and sister from that litter, you will be able to establish your own strain. The does are apt to grow coarser than the bucks. They should be kept as slender as possible. Inside hutches are probably the best for this variety, as the sun fades their beautiful brown color in a very short time. The Havanas can be kept in the same sized hutches and fed the same as the Dutch. The hutches should be kept perfectly clean at all times. Their coats should be in perfect condition for showing, and should be well rubbed each day. They should appear small, neat and short, with short, silky coats, free from dewlap and white hairs. The color should be a rich uniform brown all over, with a pale gray under color. Size about five and one-half pounds.

They should resemble the Black and Tan type. The

ears should be very fine, upright, about four inches long, with color matching the body. The eyes should be the color of the fur, with a red light in the pupil, and a gentle expression. The feet should be slender, straight, and with brown toe nails. The Havanas are becoming popular in America, and their fur is very valuable, being used for imitation of Beaver.

Silvers—Gray, Brown and Fawn—Standard.

Color—On Silver Grays the under color is a deep blue black; in Browns and in Fawns a rich orange	24.
Silvering—Should be distributed evenly over the body, head, feet and ears.....	21.
Ticking—Rich, bright and even.....	14.
Size and Shape—Under six pounds. To be short, neat and sprightly.....	14.
Ears—Short, erect and well colored.....	6.
Eyes—Large and bright.....	5.
Condition of Flesh and Fur—Flesh firm and solid, fur to be short, close and soft.....	16.

100.

Silvers.

This family of beautiful rabbits contains some interesting and valuable varieties. The “Argent de Champagne” is known in America by the names, “Champagne Silvers” and “French Silvers.” Argent de Champagne is a pure French made rabbit and one of the greatest

rabbits for fur in the world. With its rich under color of blue intermixed with black and white hairs, and the outer covering a rich even silvering, it presents a striking appearance.

When in good condition, a matured specimen should weigh eight pounds, and in shape should be neat and compact, not racy or baggy. It is becoming very popular in America, and was shown at all of the largest shows during the year of 1916. Before the great war started, France was exporting annually to Japan 200,000 of these skins, so you can have a fair idea of how valuable the Argent de Champagne is, and that they are in great demand at the present time.

Great care must be used in keeping the hutches clean, as the fur stains very easily, and they must be protected also from the rays of the sun in order to have them show the rich and bright silvering.

In feeding, use the same methods and food as described in the chapter on Belgians, with a trifle heavier feeding.

In breeding, great care should be used in selecting bucks and does that have rich, even silvering, with the proper markings of black and white hairs on a rich, clear under coloring of blue. It is a very difficult matter to separate the best colored youngsters at an early age, and until a fancier has been breeding them for some time, it would not be advisable to risk culling the poor specimens until three months of age. The small, puny ones may be destroyed in a few days after birth.

They should never be bred unless both the buck and doe have coats that are in perfect condition, for if either one is in a moult, poor coated youngsters will be the re-

sult, and it will take years to again produce that soft, silky coat so greatly desired. A little hand grooming each day, a few weeks before the show, will suffice to give the coat a beautiful gloss, and a chamois cloth may also be used. When sending them to the show room, their coats must be in perfect condition, and their flesh should not be bulgy or baggy, but firm. We are under obligations to Mr. Robert Guggenheim, the great fancier of New York city, for the illustration of this beautiful rabbit.



CHAMPAGNE d'ARGENT BUCK

Owner, Mrs. Jennie Bigelow, Dundee, N. Y.

The continental standard for this variety is as follows:

The under color is clear with blue intermixed with black and white hairs.

The silvering must be even all over the body, presenting a sharp, bright, silvery appearance, full of life and sparkle.

The coat must be soft, dense, silky and smooth.

The ears must be neat, straight and well set on the head, rather high in position.

The body shape must be neat and compact, not bulgy or baggy.

Condition must be such that the rabbit is clean, healthy, and lively, free from dirt, eyes bright, and coat sleek and smooth. Size, 8 pounds.

Silver Gray.

This popular English rabbit originated in England, and is supposed to have been made from the wild English rabbit. In the history of English rabbits we read of wild rabbits under the names of "Silver Sprigs," and "Wild Grays." The Wild Grays were more common and hardy, while the Silver Sprigs were more valuable for fur. An interesting part of the rabbit history of England is the rabbit farming that was carried on in certain localities a great many years ago. It mentions the rabbits being surrounded by high walls and raised in large numbers. The Silver Gray first became popular in England about 1899. It has never been popular in America, because the American fancier has never pushed the fur proposition until the last two years. The coming years will, no doubt, find many Silver Grays in this country. In the early days this variety was classed under different shades of color, but was changed in 1898. The Silver classes have always been strong in England, and the Silver Club is one of the strongest rabbit clubs in that country. It may be kept either outdoors or inside, and will do equally well, with the single exception that the sun will be a trifle hard on its color. The same

methods of feeding may be carried out as described in the chapter on Belgians. One peculiarity of the Silver Grays is the young all being born black, and fail to show any silvering at first. The first appearance of silvering is when the young are about six weeks of age, and is fully developed at about the age of six months. In selecting your breeding stock it is necessary to purchase the stock containing the very best blood, and the new fancier should be willing to pay the price for good stock. Cheap, inferior stock is not worth your time and feed



SILVER GRAY BUCK

bills. The color is very difficult to describe. It should consist of rich, blue black, first, then an even distribution of silvering, or white hairs, covering the body, feet, chest, head, cheeks and ears. The silvering should be uniform and govern the shade of color. The light shades will have the largest amount of silvering, while the dark shades will have the small amount. The medium shade is the most popular. The tail and claws on all four feet should match the body color. The fur should be of a medium length, not too long, and very silky. The ears

are liable to run too light in color. Select a buck with good, rich color, a trifle on the dark shade, with the color extending well down to the skin. The under coloring should be a rich, bright, blue black, and not a slaty color. The top color should be free from any brown tinge, for it will be bred into the youngsters. Light chests are very common. The nose, toes and ears should all be evenly silvered. It very often breaks off before reaching the toes, and the cheeks and head are very liable to be too dark. Guard against light colored feet. Bucks and does should both have perfect coats. Do not breed a dark buck to a dark doe, or a light colored buck to a light colored doe, but breed the dark colored bucks to the light colored does and the light colored bucks to the dark colored does. To the novice, the inside rabbitry will probably give the best results, as it will be much easier to keep the rays of the sun from the rabbits. The hutchers must receive the same careful attention as the Himalayans, for they are easily stained on the feet. Foster mothers should also be used with the Silvers. In shipping stock for the show room, it should be free from any moult, the fur silky and shining bright. The flesh should be firm and solid.

Silver Brown.

This rabbit was made in England by crossing Belgian Hare does to Silver Gray bucks and inbreeding the youngsters. They made their first appearance in America during the year of 1915 and were a failure from the start as they proved to be much harder to breed to true color than the Silver Fawns. If they can

be bred up to the proper color they are sure to be very valuable in this country on account of their close imitation of the Silver Fox. They are really made up of four distinct colors. Slate Blue should be bright and start at the very roots, and extend part way up, where it should meet a rich, bright chestnut color. Pale blue or white should not show when the fur is turned back by the fingers. The black is the ticking and the white is the silvering and should be evenly distributed. They show the same failings as the Grays and Fawns, only the bad points are much more marked and appear more frequently than in the other varieties. Use the same method in housing, feeding, breeding and grooming as with the other Grays.

Silver Fawn.

This variety originated in France, where it was bred extensively for the market, and was first known by the name of "Silver Cream." It is supposed to have been first exported into England some time during the year 1870, where it was afterwards crossed with the Silver Grays, Belgians, and even Fawn Lops. When they were first exhibited, they were anything but beautiful, showing long ears, with a lop showing up quite frequently. The hair was long. The nose very often black. The Silver Fawns in America are all owned by about six fanciers, and will never become popular, owing to the great difficulty experienced in breeding them to the true color. To explain the color so the average person could understand it, they should be called "Silver

Orange." The under color should be a bright, rich orange color, covered with an even distribution of silvering over the same parts, as on the Silver Gray. The Silver Fawn shows so many bad points that it tests the patience of every fancier to breed them at all. They will often show barred front feet, putty noses, poor colored chests and feet, and really good ears are the exception more than the rule. A Silver Fawn bred up to the standard is indeed a beautiful rabbit. The same kind of hutches, rabbitry, feeding and grooming should be used in raising them as described in the chapters on other small breeds. The breeding is more important than on even the Silver Grays, and great caution must be used in selecting nothing but the very best stock that can be possibly obtained. If it is not possible to purchase the best, then it is advisable to leave the Silver Fawns alone, for with the best of stock it will require years to produce a reliable strain.

The Blue Imperial Standard.

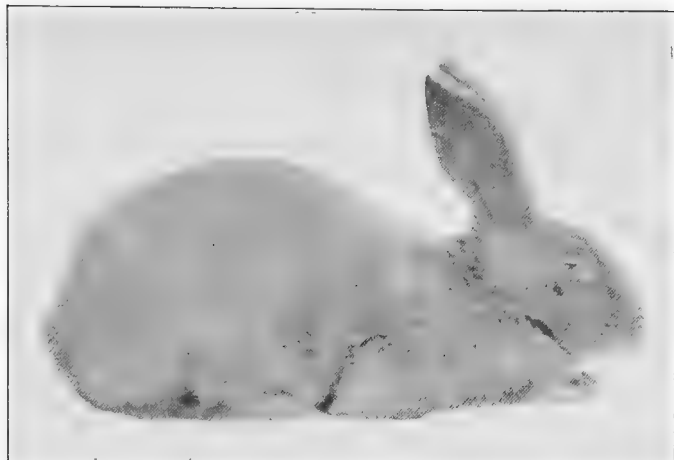
Color—Dark blue, uniform color throughout the body.	
Body color.....	15.
Head, chest and ear color.....	10.
Shape—In appearance it slightly resembles the Belgian, having shorter and heavier bones..	20.
Size—Seven pounds	5.
Feet and Legs—Medium length, straight and strong	2.

Feet Color—Color solid and matching body color	3.
Head, Eyes and Ears—Head, medium length and narrow, color to match body color; Eyes large and bold and match body color; Ears about four and one-half inches long, rounded tips, and set close at base.....	28.
Condition of Flesh and Fur—Flesh to be firm and solid, fur long and soft.....	17.
	100.

The Blue Imperial.

The Blue Imperial rabbit originated in England, and was given to the fancy by Miss Mabel Illingworth, of England. Miss Illingworth was probably the greatest lady rabbit fancier the world has ever known. The color of the Blue Imperial should be an even shade of dark blue throughout, fur soft and bright, and a trifle longer than the other short haired rabbits. The eyes should be large and deep blue in color. The ears should be four and one-half inches long, and rounded at the tips. They should be carried erect, and well together. Size about seven pounds. They should be shorter in limbs than the Belgian hare, but should slightly resemble the Belgian in type. This variety of rabbit should not be mistaken for the sports which sometimes come from the Flemish Giant here in America. There is considerable difference in the color and type. Bucks and does of as near the same color as possible should be used in breeding. The same methods in housing, feed-

ing and grooming should be applied as would be used in raising Belgians.



AMERICAN BLUE BUCK, "MAJOR,"
Owner, Lewis H. Salisbury, 249 N. Marengo Ave.,
Pasadena, California

National Standard of American Blue Rabbit
Compiled by the Standard Committee on this variety,
Fehr, Gibson and Salisbury, March, 1918.

This beautiful rabbit became exceedingly popular from the first time it was exhibited in large numbers at the Colorado Springs and Los Angeles shows during the years 1917 and 1918. Its shape is entirely different from any other rabbit. The Mandoline describes the shape and when you add the richest and deepest slate blue color with eyes to match and dark toe nails, you have a combination that is sure to make

this Rabbit is one of our most popular American Rabbits. Its peculiar shape with its large meat hind quarters will also make it very valuable for meat rabbit as well as for the fur.

American Blue Rabbit.

(Formerly Called German Blue Viennas)

Shape—Mandoline, compact, broad, meaty back, slightly arched back, not flat, medium size bones, small dew-lap as possible.....	20
Color—Rich, clear slate blue, with as great a depth of color as possible. Should be free from all white hairs, sandy, or rusty colors and uniform over the feet, legs, chest, head, ears, body and tail	25
Weight—Bucks and does at maturity, 10 lbs...	10
Head—Well shaped, not too long; even color....	5
Eyes—To be blue	5
Ears—About five inches in length, narrow, well set on and even color.....	5
Well developed thighs	10
Legs and Feet—Straight, medium size, dark toe nails,	10
Condition—Coat to be free from moult and good, deep color, free from any stray colored hairs, with dense soft, fine silky texture; flesh firm and solid	10

(All general disqualifications, also)

Disqualifications—White patches of hair, crooked feet legs or tail; any other colored eyes but blue or lop ear. Faults to be severely cut, but not disqualified; stray white hair, sandy or rusty, or any other foreign colored hair, uneven color on body, legs or loins. Rough or uneven coat.

Polish Standard.

Color—Rich, pure white.....	14.
Shape—Short and neat. Weight, three pounds	14.
Coat—Short, fine and silky.....	26.
Ears—Short, set very close together and well rounded. When viewing them from the side they appear as one ear. Good fur on base of ear if possible.....	16.
Eyes—Large, bold and blood red.....	16.
Condition, Flesh and Fur—Flesh firm and healthy. Fur in fine condition, free from moult or stain	14.

100.

The Polish Rabbit.

This variety of rabbit is supposed to be one of the most common in America, but the fanciers who know real Polish realize that the majority of so-called Polish are, in truth, just common white rabbits, or white Belgians, as they are also called. They are entirely too large for Polish and their fur is also coarse and the type entirely different from the beautiful, stylish little Polish. The real Polish is one of the most attractive rabbits in the fancy. They may be housed outdoors or inside, but caution must be used, for they will also

fade when the sun strikes them. Their hutches must also be kept clean at all times, for their feet stain easily from poorly cleaned hutches. Plenty of sawdust and fine straw bedding the entire year will help keep them in fine condition. The hutches should be cleaned out three times each week and thoroughly sprinkled with germicide after each cleaning.

Good, clean, regular feeding is all that is required. In feeding carrots or other roots, never feed them whole to the Polish, as they will stain their noses by eating out the center. Hay should never be used for bedding, as the dust becomes settled in the fur. They are also very liable to get diarrhoea. Give them milk with a little arrowroot mixed in it. They are also subject to fits at certain ages. Milk with a little brandy in it will relieve them. In breeding, select the small, plump, short specimens, with short, narrow ears, set well together, having, when viewed from the side, the appearance of a single ear. The ears should also be well covered with fur. The head should be thin, with fur growing up from the roots of the ears so the ears appear very short. The most important points with the Polish are coats and condition. It is necessary that the coat be close and fine as velvet. The bones should also be fine as possible, especially in the legs. Never handle by the ears, only in brushing them. Use dry white bread crumbs in cleaning their coats of dirt. In preparing for exhibition, just give a good hand rubbing every day and finish by polishing with a chamois cloth. Nothing more is required.

Never put anything in your shipping case but

sawdust. The fur is being used extensively in imitating ermine.

Japanese Standard.

Shape and Size—Short and thick, with powerful legs, weight, eight pounds.	
Body	10.
Legs	10.
Head—Medium size and well spotted, with black patches	5.
Ears—Medium size, spotted patches to match body color	5.
Markings—To be irregular and patches of different colors	29.
Under Color—Shiny, and shading from a cream to brick red.....	21.
Condition of Flesh and Fur—Flesh to be solid..	5.
Fur to be soft, close, and free from moult..	15.
	<hr/> 100.

The Japanese Rabbit.

The Jap rabbit has been seen by only a few American fanciers, and once seen, is never forgotten. A litter of Japs showing different color markings is very attractive to all rabbit fanciers. With short and well set body, strong limbs, nice shaped head and ears well set together, and with color markings from faintest cream to deepest brick red, with plenty of patches, spots and

stripes of deep black, they present a striking and attractive appearance. A German fancier once described them as follows: "Take a fawn colored skin, a brush, and some black paint, and attempt to paint a tiger, and you would have a black patch on the shoulders, one on the back, and several spots 'joined,' and resulting in a few black stripes, several small and large spots, and the ears looking as if the paint was sprinkled all over them. A black stripe across the nose, one black eye and so on. No regularity in the markings; that is how the Jap should look."

With the markings irregular, they should appear small and run into each other in smooth lines, and the colors should be bright and distinct.

They make good mothers and are matured at six months, weighing about eight pounds. The fur is valuable and is used in making door mats, cushions and many other useful articles. They should be kept away from the rays of the sun. Their feeding, housing, hutching and breeding should follow the same methods used in raising Belgians, only they will stand more feeding. Bucks and does of as near the same color as possible should be used in breeding. Two colors are allowed to be shown, black and fawn. Disqualifications: Little or no distribution of colors. Too light or too dark, faded or washed out colors, white markings except the white claws. Body too long or too steep at back. Bent legs or tail not straight. Ruptures and deformations on body, too small hanging ears, large bits or tears in eyes. Fur rugged or defective. Disease, dirt or vermin.

Part III.

CHAPTER I.

THE FOOD VALUE OF THE RABBIT.

AT THE present time the utility side of the fancy is being only partly developed, that is, the meat side, while the fur side of it has been entirely neglected.

We will first take up the meat proposition and try to show the fancier what a demand there is for tame rabbit meat, and how to create a demand in localities where there is none. The first thing to be considered is your rabbitry and your location. Unless your surroundings, rabbitry and outdoor hutches are perfectly clean and sanitary, it will be a hard task to interest people in eating rabbit meat. The outdoor hutches with wire bottom, shown in the cuts, make excellent hutches to raise stock for the market, and a person can see at a glance that they are perfectly sanitary and would never hesitate to eat the meat produced under such conditions.

The next thing is to create a market, if you have not one already. There are several good prospects; one is the hotel and restaurant trade and the other the private home trade which proves the better when properly handled. We will take the hotel and restaurant trade first. You may be the first person

to approach them on the subject and they may turn you down, but if you offer to dress a couple for them and make them a present of them, asking them to try them for a special dinner, and then go back and ask them what the guests thought of them, it is a sure thing that you will secure a good customer, provided you fed and dressed the rabbits in the proper manner. They should be dressed at about nine to twelve weeks of age for fryers and for roasting or stews they will be satisfactory up to one year old, but under that age is better. If they have been fed and properly taken care of they should be plump and nice when dressed.

In working up a private home trade, it is often necessary to make a present of a nice dressed rabbit to some person that you feel is able to purchase rabbit meat each week. A customer is easily made by a present of a nice dressed rabbit. Of course in small cities and towns one will not receive as good prices as in the larger cities, but the feed bill is also much less.

How many of you ever think when you visit a large city and take your meals at a first class hotel or restaurant to ask for Belgian hare or tame rabbit meat? This is a small thing, but it has resulted in causing hotel managers to try tame rabbit meat, and once tried, always used. Educating the public to eat tame rabbit meat is what we are working hard for at the present time, and we need the co-operation of every rabbit breeder in America. Talk rabbit meat to every person with whom you come in contact. Make yourself a committee of one to "boost" tame rabbit meat in America and it will not be very long

until the meat proposition in the rabbit fancy will be an enormous thing. The market is here and all we need is a little hard work upon the part of each fancier to help educate the people to eat tame rabbits. The wild rabbit is extinct in many parts of America and very few people care to eat them after they have been lying around full of shot, probably from three days to a week. In some localities they are not permitted to be sold at all. In raising stock for the table your rabbitry should be just as clean as if you were raising some fancy show stock, and in fact, often the fancier raises both at the same time.

Some people making a regular business of raising rabbits for the market, have cement floors, running water and posts with ropes hanging down with a loop on each end through which to slip one hind foot after they have been killed.

The proper way to kill rabbits is to hold them by the hind feet and strike a quick blow on the back of the head with a small hard stick. Bleed them at once by cutting a slit in the throat with a penknife, then hang them by the feet in the two loops provided and proceed to skin them. This should be done as carefully as possible provided it is not in warm weather, when the skins will not be of much value. If in winter, the skins should be saved, as the fur proposition is becoming a good one, and the fancier who keeps on throwing away his rabbit skins during the winter months will certainly regret it in the near future.

I wonder how many people in America know that England, before the war, imported annually more than

12,000 tons of rabbit meat from New Zealand and Australia.

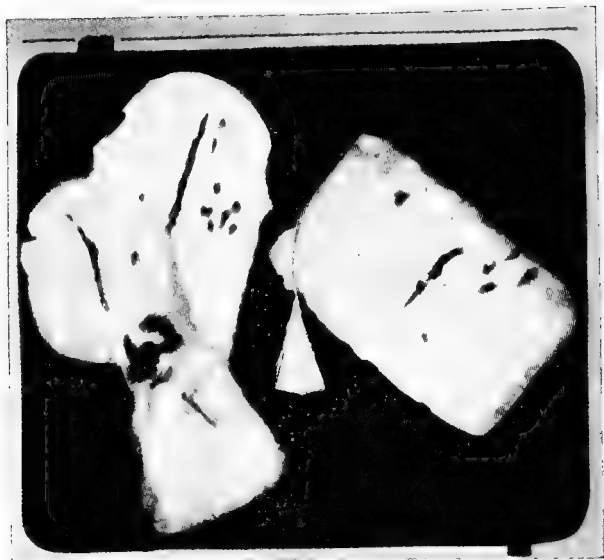
California, Colorado, Washington and Oregon are coming to the front and a person can see tame rabbit meat in the public markets of those states. The rabbit fancier has everything in his favor, for the greatest physicians in America have said that tame rabbit meat contains more nutriment than any other meat, and they have recommended its use in hospitals and sanitariums. All the American fancier has to do at the present time therefore, is to raise his rabbits in the proper manner, dress them properly and work up his trade and he will have a fine side line, if not a business proposition in itself. A great many California fanciers on small truck farms are making more money out of their rabbits than from the remainder of their productions combined.

The outdoor movable hutch will solve the problem for the man on the truck farm, who is afraid he cannot find time to properly take care of the rabbits. These hutches with wire bottoms are self cleaners and the rabbits make nearly all of their own living by eating the grass through the wire mesh. They can be moved each day, require very little attention, and certainly do well. In raising rabbits for good, first class trade, do not try to feed and fatten on green food altogether, for it will not make the flesh solid enough. They must be finished off on oats or barley. Bread and milk is also very good for table rabbits.

After being dressed, the rabbit should be placed in cold water and permitted to stand for one or two hours. In winter a fine way is to let them freeze on

a glass slab. If catering to fancy trade, you can soon learn to decorate the inside by crimping the layers of fat on each side and garnishing with parsley. Then wrap separately in paraffine paper, place in a pasteboard box or wrap in several layers of white paper. When they are sold hog dressed, it is not necessary to go to so much trouble. It is quick work to dress rabbits and with a little practice, a person can dress several dozen in a short time. They can also be hung on a line in winter, in cold climates, and permitted to freeze. A few extra minutes spent in giving the rabbits a neat, clean appearance in making them ready for cooking, will hold your customers, and help educate the public to eating tame rabbit meat.

If young bucks are castrated it will improve the size and quality of the meat. They should be castrated just as soon as the testicles drop down. It requires two persons to castrate a rabbit and they can either be placed head first in a boot or on their back. A sharp knife should be used and a short quick cut lengthwise of the testicle. They will then come out very easily. A weak solution of peroxide can then be used. Rabbit meat can also be salted down in barrels the same as pork.



Typical set of fur made by Mrs. Sherman, 2669, N. Griffin Avenue,
 Los Angeles, Calif. The following varieties were used:
 Himalayans, American Checkered Giants.

CHAPTER II.

TESTED RECIPES FOR COOKING AND SERVING THE RABBIT.

Rabbit Pick Me Up.

TAKE THE meat from a well boiled rabbit, half a pound of boiled bacon, half pound boiled onions, some mashed potatoes. Pass the rabbit, bacon and onions through a mincing machine, season to taste. Make the whole into balls and roll in potato paste, fry in boiling fat until brown, serve hot.

Jugged Hare.

Cut rabbit in joints, flour them over and fry brown; place a layer of fat bacon, add salt, a few pounded peppercorns and cloves. Let this simmer for one hour and a half. When tender, take rabbit out, which must be kept hot until gravy is prepared. Strain and mix one wine glass of port wine and one tablespoonful of red currant jelly, thicken with butter and flour if required and season with salt and pepper.

Hausenpfeffer.

Take rabbits and cut each into eight pieces, the two legs, and two shoulders, and breast and back each cut in two pieces. Wash well, drain, then steep for a few hours in vinegar containing thyme, carrots

and onions. When ready take the pieces, roll them in flour and fry lightly in butter. Put them in a sautoir (saucepan) when fried. Now fry some pieces of salt pork, add them to the rabbit, with some flour, moisten with stock, simmer and skim. Then add some button onions, a little thyme, and enough of the vinegar they were steeped in to give a sharp flavor. Simmer till tender and serve.

Potted Rabbit.

Take rabbits and bone them, cut in suitable sized pieces. Put the pieces in individual jars like bean jars, with diced bacon and mushrooms, take the bones and head, pound them, boil them with carrots, celery, onions and a little thyme. Thicken it slightly, strain and cover the meat in the jars with it, put on the lids and bake slowly till tender; serve in the jars.

Braised Rabbit With Tomato Sauce.

Take the backs and legs of rabbits, lard them. Braise with bacon, onions, carrots and a bunch of thyme. When tender, take up, add thick tomato sauce to the *brasiere*, simmer and strain. Serve it over the rabbit.

Saddles of Rabbit Broiled.

Take the whole back of the rabbit, soak it in warm salted water for an hour, take up and wipe dry, broil it well done over a clear fire, serve on toast with *Maitre d'Hotel* butter, to which has been added a little currant jelly.

Saute of Rabbit.

Take the legs and saddles of the rabbits, soak them in warm water for an hour, then drain and wipe each piece dry; season, then roll in flour, fry a light color in butter. Make the sauce in the same pan, boil and skim. Put back the rabbit, add some sliced mushrooms, simmer till tender, finish with the addition of a little sherry wine.

Smothered Rabbit With Onions.

Take the legs and saddles, blanch and drain them. Arrange in a sautoir. Cover with a light brown sauce and let simmer for half an hour. Meanwhile fry lightly plenty of small button onions, add them to the rabbit, simmer till tender, serve garnished with onions and a fancy crouton.

Rabbit Pie a l'Ecossaie.

Take the legs and saddles, cut into inch pieces, make them into a saute. Take the hearts, livers and brain, ground fine and with the addition of a little grated bacon, bread crumbs, chopped parsley and a flavoring of thyme, make force meat balls. Lay rabbit in pie pans, add the force meat balls and some short crust and bake one hour.

Virginia Style.

Cut into pieces; have a frying pan smoking hot, put pieces of bacon in it; when brown, add rabbit, diced bacon, pour over the sauce, cover with a good

fry brown, then sprinkle with flour and keep turning until flour is browned; then add hot water, pepper and salt, and let boil till gravy is smooth, serve on a hot deep platter.

Spanish Style.

Cut into pieces and stew with onions and two dried red peppers, a tablespoonful of olive oil and salt; add a can of tomatoes and half cup of dried mushrooms soaked in water a few minutes; thicken gravy with corn starch. Cook all together with red Spanish beans or plain boiled rice, and one onion cut up fine.

Baked Rabbit en Casserole.

Can be boned or not as desired; lay alternate layers of rabbit and thin slices of bacon, season with thyme, sage, and thin slices of onions. Fill the dish with water, bake in a slow oven for one and one-half hours. A deep covered baking pan can be used instead of casserole.

Roasted Rabbit.

Lay rabbit in salt water while you prepare the following dressing: Mince a slice of fat salt pork and mix sufficient bread crumbs to fill the cavity. Season it with salt, pepper, thyme, and minced onions. Stuff rabbit, cover with thin slices of bacon, pour a cup of water in the pan and bake one hour, basting frequently; add a little lemon juice or vinegar to the gravy

Dredge with flour, brown and remove from oven. Thicken the strained drippings with browned flour, season with salt and pepper. Serve on hot platter garnished with the slices of bacon, slices of lemon and greens.

Cutlets of Rabbit, Tomato Sauce.

Take the legs, roll them first in a mixture of salt, pepper and powdered poultry seasoning, then in flour, dip in beaten egg and fresh bread crumbs. Place in pan containing melted butter, put in slow oven for over half an hour, or till tender and brown; serve with tomato sauce.

Epigramme of Rabbit Pique.

Take the legs and lard them, fry one-half of them slowly until tender, and braise the other half. When serving, place a line of mashed potatoes down the center of dish. On one side place a braised leg, dipped in white Italian sauce, on the other a fried leg. Garnish the ends with fancy shaped quenelles made of the hearts, livers and brain.

Deviled Rabbit.

Take the legs and saddles, boil them for fifteen minutes, let cool, then score them slantwise in three or four places to the bones. Make a mixture of melted butter, cayenne, Worcestershire sauce, mustard and Tarragon vinegar. Thoroughly rub the cuts with the

mixture. Now slowly broil them a light color, and serve garnished with croutons and a little of the deviled mixture made hot and poured.

Twentieth Century Style Rabbit.

Joint the rabbit, and cut large pieces in two. Brown well in hot butter, or fryings. Place in fireless cooker dish with just enough water to cover. Add four small onions minced fine and a handful of bay leaves in a bag or holder. Season to taste with salt, cayenne and black pepper crushed or freshly ground. Boil gently for thirty minutes, then place in cooker six hours. Delicious served with whole wheat dumplings.

Rissoles, Carnellons, and Croquettes served with Curry, Italian, Tomato sauce or Soubise sauce are very fine.

Rabbit heads and front quarters make good soup stock. Season with any desired spices and add vegetables, barley or rice. Rabbit meat is used for mince meat on the Pacific Coast. Bone it and prepare the same as you would beef. Rabbit meat is also canned in Oregon and Washington. To tell a young rabbit from an old one, press the lower jaw; the jaw of the young one will snap very easily.

CHAPTER III.

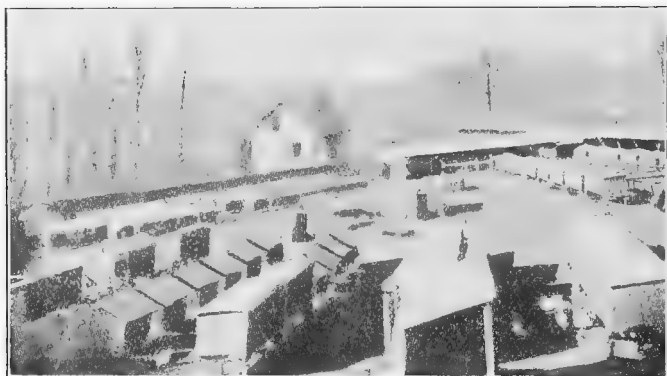
THE FUR PROPOSITION.

THE GREAT problem now confronting the American Fancier is marketing the rabbit skins instead of throwing them away. They should be used for fur as they are in other countries. With fur advancing in price each year and fur bearing animals becoming more scarce each year, the rabbit fancier certainly has a great opportunity to start "boosting" the fur of the rabbit. It is a fact that some of our American rabbits are being used extensively in other countries for their fur and there is no reason why they can not be used for the same purpose in this country.

Last year fur advanced 170 per cent. over the prices of two years ago. The Himalayan, Champagne, Silvers or Champagne d'Argent, as they are called, Polish and many others are being used for imitations of the more expensive fur of different animals. Even our Flemish skins have been pronounced good enough for door mats, auto robes and children's furs, so it really looks very encouraging if our fanciers will only take advantage of the opportunity and co-operate in pushing the fur side of the fancy. If the fanciers will work together on this proposition the government is sure to take hold of it for the American fanciers and make it worth while to push this important in-

dustry. The governments of Germany, Holland, France and Australia before the war, realized the importance of the rabbit fur proposition and were glad to take hold of it to help the breeders find a market for the skins. Statistics show that in France before the war, there were collected ninety millions of rabbit skins each year. Of these, thirty millions were exported in their natural state, ten millions were used for fur, and fifty millions were sheared for the hair.

The rabbit skins should be taken off between the



SUNLIGHT RABBITRIES, LONGUEVILLE, FRANCE

Fur Rabbits, Silver Champagne, Havanas and Common White Short Hair Rabbits.

months of October and March and at about the age of seven months or older. In another chapter instructions are given for removing the skins. The skins should always be placed in the shade, stretched in a semicircle over a piece of green wood to avoid creases and heating, and should be well stuffed out before hanging up to dry.

Tanning.

The following method will tan any light skin and with a little practice will afford an excellent pastime and make an interesting study as well. All dry skins must first be soaked in water until they become as soft and pliable as green skins. A green skin, one just removed from a rabbit, should have all the flesh and fat removed by scraping with a dull knife, being careful not to cut the hide. Wash well and let the skin soak from three to eight hours, depending upon the thickness, in lukewarm water, in which has been dissolved one cupful each of salt alum and saltpetre to the gallon. Pull and work the skins well while washing them. Wring the skins out and stretch them flesh side up, and rub in thoroughly a mixture of two parts fine salt, one part each of saltpetre and powdered alum, half part arsenic and if for a heavy skin add a teaspoonful of blue vitriol. Use plenty of this mixture and work it in well, being sure to get it into all of the wrinkles and out to the edges. Place the skins flesh sides together, fold in the edges and roll tightly. Keep in a moderately warm place. Rub in fresh mixture every two or three days and work the skins well together. The fur will not be

injured at all by the juices being brought out of the skins by the mixture. If the rabbit skins have been properly worked, the skins should be tanned in two weeks. When the mixture has gone entirely through the skin it is cured. Rinse well in lukewarm water to remove all of the mixture, and then wash in strong, lukewarm soap suds. Use a washboard, just as in washing a garment. If the fur is badly matted, comb with a coarse comb while under water. Wring and shake the water out of the fur and hang up tail end down in the sun to dry. When partly dry begin working the skin and work it until entirely dry. The more the skin is pulled and worked while drying the softer it will be, and the same applies all through the tanning process, the more it is worked the quicker it will tan. A good way to work a tough skin fur is to pull it around a square edged post or over the edge of a board, flesh side in. A little warm neatsfoot oil, worked into the skin after it is dry, will make it softer and help to keep it so, should the fur get very wet. If the skin has been properly tanned it should be perfectly white and soft as kid. If not so, put it back into the pickle and let it remain until it is soft. Do not use hot or very warm water for a green hide will burn in either. Lukewarm water is the proper kind. To tell when the skin is cured: When it is drying after being washed, the edges or places where it has been worked will look something rawhide, that is, smooth, rather clear and of a darker color. If when pulled tight and rubbed hard over the knuckles, it stretches out and turns white, the tanning mixture has gone through, and the skin is cured. A pretty tan

color may be given the skin by mixing yellow ochre in the neatsfoot oil, or in the last water.

A light weight skin can also be cured by the oil process as follows: Saturate the skin with warm tanner's oil—fish oil—after it has been washed in the salt alum water as directed for dry tanning, then roll up tightly and keep in a warm place. Rub in fresh oil often and work the skin each time. A light skin should tan in three weeks. Wash in warm soap suds; dry as directed. If the fur is greasy wash in weak lye water or put a little ammonia in the last water.

Only parts of the skins are used when making up the furs. If matched and pieced properly the seams will not show. Match up the fur with the hair running the same way, and mark on the flesh side where they are to be cut. With a sharp knife cut just through the skin and pull the pieces apart. In this way the hair is not cut as it would be if shears were used, or the knife allowed to go clear through. The hair on the head end piece overhangs the cut and the seam is hidden. Sew with a baseball stitch or over and over, very close to the edge and press the seam down flat. The fur may be sewed before it is dyed, but it is usually better to dye the skins and then match them up as some parts may take the dye better than others.

The lady fanciers of Los Angeles, Calif., are making beautiful sets of furs from the following varieties: Himalayans, German Checkered Giants, White Giants, Black Giants. The New Zealands are being used to imitate Red Fox, and the Steel Gray and Light Gray Flemish Giants are being used to make door mats and

auto robes. Mr. Wm. Smythe, editor of "Little Lands on America," promoting the rabbit business, by showing films of their wonderful rabbit ranch, where they have a canning factory and a department for the rabbit fur. He is also encouraging the people in little farms to raise the rabbits for food and fur. When such men as Mr. Smythe become interested enough to give up their time and money to promoting both the meat and fur proposition of the rabbits, then the future of the rabbit industry looks very bright.

Prof. Shufeld, editor of "Rural World," published in Los Angeles Cal., is also working hard to educate more people to engage in the great rabbit industry.



Allendale Pride; weight 17 lbs. at 11 months. Owner, Geo. Hilton, 3615 Penniman Ave., Oakland, Cal.

CHAPTER IV.

RABBIT FUR

By C. E. Sherman

Proprietor of the Los Angeles Fur Farm

TO understand the nature of the change effected by tanning the hide, it is necessary to refer to its structure, which consists of three layers, the epidermis, the derma and a fatty under tissue. The epidermis has two layers, consisting of a fibrous outer layer which is constantly being shed and renewed by the under tissue.

The derma or second layer, is the true skin and the leather making tissue. The inner layer or fatty tissue between the derma and the flesh contains the respiratory glands.

A fresh skin undergoes decomposition very rapidly, if dried becomes stiff and heavy or if boiled with water becomes glue.

The object of tanning is to bring the skin into such a condition that decay is stopped and after drying no longer is stiff and hard, but a soft pliable tissue.

Alum was first used to tan skins and is still used to some extent, but has been replaced by the use of various acids, which, if properly used, destroy the glue in the hides, leaving them soft and porous, a



LOP-EARED BLACK BUCK
Owner, Mr. Anderson, Cleveland, O.
Ears, $25\frac{1}{2} \times 6\frac{1}{4}$ inches.

layer of fibres in which the fur is firmly and securely set.

It is necessary to wash skins in a solution to neutralize any remaining acid, as the fibres may be destroyed if left in acid too long.

Dirty and greasy skins are treated with benzine baths, to clean the fur, as no matter how well a skin may be tanned, matted and dirty fur is not wanted by anyone.

It is almost impossible to save a hide if the hair has commenced to slip away. If taken early enough, however, when the hair is only slightly loose, it can sometimes be set satisfactorily again by immersing the hide in a strong solution of salt and alum brine. This brine should be boiled and then allowed to cool. The hides should then be immersed and left until the hair is set, which takes from one to four hours, after which they should be hung in the open and allowed to dry. If this does not set the hair, then the hide is useless for fur purposes, but can, of course, be tanned for gloves, slippers, etc.

A beginner, even should he have the proper formulas, should first practice with ordinary hides such as young New Zealands or Flemish and when he has succeeded with these, try others more valuable.

There is no reason why the energetic and persevering beginner cannot master the principles of fur dressing.

Many people seem to think there is some mystery in removing the hide of a rabbit. By following a few simple directions, anyone can do this so that the

hide will be in good condition. The principle idea is to get the skin off whole and with as few accidental cuts as possible. They should always be taken off, "cased"—that is: to be removed whole over the head, with no incision down the stomach.

To remove a skin "cased," hang the animal by the heel tendons, after starting the cuts down the inside of the hinds legs, slit the legs to the base of the tail in a straight line across the vent, and slit the tail. Many times the tail will slip whole, but unless it is slit open, it is hard to tan as liquor will not penetrate as easily and fur will slip.

If the feet are well furred, one may have the skin of the feet, toes and nails all left on by severing each toe just above the nail.

The skin is pulled down over the head, wrong side out, using the knife to cut any ligaments attaching it to the flesh. Always cut towards the body rather than the skin, so that no cuts may be made in the skin. Bits of flesh and fat adhering to the skin may be removed afterwards. When the forelegs are reached, they may be removed and cut at the ankle joints or the toes as desired.

If one wishes to save the head, cut carefully around the eyes and cut ears off next to skull, continuing to the nose and lips which by patient cutting will come off nicely. The skin should then be fleshed, removing all flesh and fat as any left on the skin will rot the roots of the hair and cause same to fall out. After salting well, being sure to cover all parts thoroughly, put skin in cool place to dry before tanning.

CHAPTER IV.

DISEASES AND REMEDIES.

THIS IS another subject which alone would fill a book, as rabbits have many diseases, some of which certainly test the patience of the oldest fanciers.

Snuffles: The most common and dreaded of all disease is just plain "Snuffles." It matters little by what name you call it, the proper name is "Snuffles" and all the medicine in the world will not help infected rabbits unless you are willing to help the medicine. In the first place about nine out of every ten cases of snuffles come from poorly constructed rabbitries, dirty, neglected hutches and poorly cared for rabbits. There are several fine remedies on the market for snuffles that will give instant relief and cure them if given under the proper conditions. In another chapter, the proper rabbitries are fully described, and you can easily decide by comparison if your rabbits are properly housed and have the attention they should receive. In a great many rabbitries you find the roof right down close to the rabbits and during cold weather this produces dampness, as shown by the frost hanging from the roof. Other rabbitries are poorly constructed barns with but one layer of roofing and siding, poor ventilation, and hutches that are only cleaned when they are piled up so high with dirt that

the rabbits can scarcely move about in them, and a disinfectant is never used. It is small wonder your rabbits have the snuffles!

Dr. Ochs, 300 Maple Avenue, Oak Park, Illinois, a member of the National Association, has discovered an excellent cure for snuffles in form of a vaccine which has produced some wonderful cures. It is to be regretted that the Doctor is too busy with his other work to exploit the Cure.

Snuffle Cure. Stramonium Leaves and Saltpetre. Make a smudge of this preparation and force the rabbits to inhale it. For small rabbits an old fashioned steamer used for making puddings can be used. Make the smudge on the bottom of the steamer, then place the rabbit on top of the inside vessel, place the cover on and leave only a moment at a time. The cover should be full of holes to keep the rabbit from smothering. Some druggists have the above named articles prepared, ready for use.

Oil of Eucalyptus 1 drachm; liquid petroleum 1 ounce. Use in atomizer two or three times a day for colds and suffles. Boil one pint of tar in enough water to make one pint of liquid, strain, add one teaspoonful of camphor, one teaspoonful of oil of eucalyptus, shake well and use in atomizer or dropper two or three times a day for colds and snuffles.

If conditions are favorable for curing snuffles, you are ready to proceed, but if they are not favorable, you have a mighty hard proposition ahead of you. In high altitudes one is seldom troubled with snuffles,

but in localities where sudden changes and damp weather prevail, "snuffles" are common.

It starts with sneezing, and a cold in the head, and if the specimen is not isolated at once, in about two weeks, you will probably find you have a regular epidemic of snuffles. When a rabbit commences to sneeze, isolate it at once, rub its nostrils and around the forehead with a cloth as hot as can be borne. Then give a teaspoonful of equal parts of common kerosene and oil of tar in nose. One-half pint wine of tar; five drops Eucalyptus oil; five drops camphor oil, given in nose, with ear dropper. It is also a good thing to scatter a little oil of Eucalyptus in the hutch each day. Drop it in the sawdust and rub on inside front feet.

It is very contagious and rabbits with snuffles will usually produce youngsters with the same disease. If the rabbit has catarrh or influenza, a thin, almost transparent fluid comes from the nose, while in case of "snuffles" a thick white or yellow mucus comes from the nostril with much harder effort than in case of catarrh. Another good simple remedy is a few drops of sweet spirits of nitre given in lukewarm milk every other day. Be careful after effecting a cure to prevent its return, for the same causes will again produce the disease. The essential thing is to remove the cause, when the disease rapidly disappears.

Slobbers: Another common disease among young stock is "slobbers," which comes from indigestion. This occurs from lack of food as well as from over-eating. It is also caused by the youngsters eating oats and hay at too early an age. The patient should

be isolated at once in a hutch without feed or water. Then rub common table salt under the jaws, in the corners of the mouth and on other parts that appear wet. Another remedy is one tablespoonful each of Chlorate of Potash and powdered ginger, added to eight ounces of water. Shake well and give one teaspoonful twice a day. Feed on bread and milk and crushed oats only.

Ear Canker: This starts with a creamy discharge from the ears, which will develop rapidly into a waxy substance. If taken at the start, powdered flowers of sulphur will stop it, but if permitted to become waxy, warm olive oil or camphorated oil will clean it out and cure it in a couple of days. Boric acid, one-half ounce; Powdered camphor, 60 grains; zinc oxide, 120 grains. Use as a dusting powder in the ears twice a day.

Liver Complaint: This disease kills a great many rabbits and there is very little hope for the patient when it becomes settled. The patient generally has trouble in breathing and can be heard quite a distance. They eat well, but have a strange appearance. By feeding plenty of dandelions, liver trouble is not experienced very often. In severe cases, it is best to kill the rabbit at once.

Diarrhoea: This is another common disease, but if taken in time need not prove serious. This disease is more often noticed in young stock than in old, and usually comes from poor feeding, such as wet, green foods or those that have become too old. As soon as the bowels become too loose, the patient should be isolated and all green foods taken away, feeding oats and hay instead.

In severe cases give some powdered arrowroot in lukewarm water. If the stomach becomes inflamed, give ten drops of laudanum in thirty drops of olive oil.

Infant Mortality: A disease often noticed in youngsters. They appear to have little life and keep dropping off one by one without any apparent cause. This disease can usually be traced to the following causes; Sickly and unhealthy parents, or from the doe, which has been bred too often or permitted to raise too many youngsters. If properly bred and only permitted to raise a certain number of young, as explained in the chapter on breeding, this trouble will seldom occur.

Insects: These are more often found in the ears of Lops than other rabbits and result from unclean hutches. Sprinkle fine sulphur in the infected hutches after thoroughly cleaning and disinfecting them, also rub some of the mixture upon the rabbit's ears.

Dizziness: This is a mild attack of paralysis, the symptoms being weak limbs and the head carried to one side. It is caused by indigestion and nerve trouble. Plenty of dandelions and other green foods should be given. A tablespoonful of powdered camphor to a quart of lukewarm water once a day will effect relief and a cure in the majority of cases. If the attack develops into fits, give small doses of brandy and milk. There is little help for the disease at this stage.

Ophthalmia: This is a disease affecting the eyes of rabbits. They become very sore and swell so much they can scarcely be closed. It is caused by gases arising from dirty hutches, and exposure to draughts. The afflicted rabbits should be placed in the cleanest and best

aired hutches obtainable and their eyes bathed first with warm water, then milk. Another good application is a quarter of an ounce of white copperas to a pint of water. Bathe three or four times a day.

Overlapping Teeth: These are seldom met with and can be avoided by careful watching. Should signs of it appear, the teeth should be pulled or cut off until they meet properly.

Paralysis: This disease ranks next to Pneumonia in fatality. The first symptom to appear is dragging of the hind quarters. Give a teaspoonful of brandy in half a glass of milk, which may give relief if administered at the start.

Pot Belly: This comes from improper feeding, which causes the abdomen to swell to large proportions. Cut out all green food and give very little of any food for a couple of days. Then put a pinch of flowers of sulphur in the oats each day for the first three days.

Red Water: This is kidney trouble and the symptom is discolored urine, caused by damp hutches and improper feeding. Give plenty of dandelions and barley water, made by steeping pearl barley in warm water and letting it stand for twelve hours.

Vent Disease: This is another disease that usually arises from dirty hutches or by breeding unhealthy specimens together, as it is contagious. The disease is first shown by the inflammation of the sexual organs. Should these become raw and swollen, it is serious, and quick action is necessary. This disease is sometimes mistaken for Syphilis, which affects the health of the rabbit seriously and for which there is no cure.

Twenty-five per cent of Argyrol. Apply to organs with dropper every three or four hours. Can also be used for sore eyes.

Mange and Skin Diseases: These are also caused by dirty hutches and improper attention. A simple remedy is sulphur and lard. This should be well rubbed into the skin. On the second day scour well with warm water and castile soap. When thoroughly dry, return to the hutch. The next day give a second application of sulphur and lard, followed by the soap and water treatment. Two applications should effect a cure. It is dangerous to use this remedy in cold weather. Mange is very infectious, hence care should be exercised in isolating the cases.

Sore Hocks: These are seldom seen at the present time. If it occurs, place the rabbit in a dry hutch, having the floor completely covered with sawdust, and plenty of marsh hay for bedding. Feed oats sprinkled with flowers of sulphur and rub camphorated oil into the affected spots. Keep bandaged with adhesive tape, and also use vaseline.

Constipation: This disease can be avoided by feeding the stock plenty of good healthy green foods as described in another chapter. Give warm castor oil, a teaspoonful at a time, and if this fails to produce results, an injection of warm soap suds should be administered without delay.

Swollen Teats: These are very common and some does will have them without breeding young. Do not squeeze them, but rub gently with unsalted butter, or camphorated oil.

Worms: Give six grain doses of areca nut in a

saucer of milk on alternate mornings.

Abscesses and Boils: Abscesses often result from bites or scratches, and are large lumps filled with pus. The fur around the abscess should be removed and an incision made clear across the lump, when, by careful handling, the pus bag may be entirely removed. Bathe the wound with a weak solution of Peroxide of Hydrogen in warm water, to which have been added a couple drops of carbolic acid. This will prevent infection. Abscesses are sometimes bred into youngsters by parents afflicted with them. Boils can be treated in a similar manner except that the pus must be squeezed out from time to time as the boil ripens. If the boil appears in a doe, it will often disappear if she is bred at once.

Convulsions: This disease very often goes with infant mortality, and the fancier can feel sure it is either the lack of proper feeding or breeding. If the does and bucks are unhealthy or the doe has been bred four or five times a year and permitted to nurse six or seven at a time, no wonder the youngsters will have convulsions. Add to this the feeding of bran, cabbage leaves and other cheap feed and the owner may expect convulsions and infant mortality to follow. There is no cure for convulsions, and the only thing to do is to eliminate the causes by following carefully the suggestions on feeding, breeding and housing in other chapters. Small pieces of apple limbs once in a while are good as a tonic.

Infant Mortality: Speaking of Infant Mortality, I fear the average novice will not fully appreciate its significance. Many fanciers, especially beginners, have

written the author, stating that their youngsters seem to do fine up to a certain age, then drop off suddenly, apparently without cause. Others write that young rabbits appear so weak they can scarcely walk, then die one by one. In the majority of cases it was ascertained that the breeders were trying to get five or six litters a year from the doe and permitting her to nurse six to ten at a litter. In nearly every instance, proper food had been given, but they had been breeding and nursing their does to death, and the result was "infant mortality," which is the cause of more young stock dying than any other one cause. Breeding sickly or old, worn out bucks and does also results in heavy loss of youngsters. If you are having this trouble, look up the methods given in this book and see wherein you are at fault. It may be in feeding, housing or breeding, or it may be your stock is inbred so far that it has lost its vitality. If the latter, you better destroy them at once.

Lung Fever or Pneumonia: There is little help for this disease. Take the specimen into a warm room, wrap it in warm flannel and give warm brandy or whiskey and milk, a teaspoonful dose every three hours.

Paralysis: Four grains camphor, 3 grains sulphur, 2 grains sulphate of iron, and mix in a little powdered liquorice, and give a small pill every other day.

Bites and Scratches: These may be small, but are always very poisonous and should be looked after at once. The wound should be cleaned with castile soap and warm water. Then bathe with a strong solution of Peroxide of Hydrogen several times a day.

In case of cuts or scratches on the feet or body, keep the wounds well soaked with carbolated vaseline, which will keep white hair from growing in as the wound heals. If a toe comes off, apply vaseline at once and keep the wound well soaked with it.

Giving Medicine to Rabbits: This seems to be an awful task for some fanciers. The writer has seen two giving one little rabbit medicine. Just take the rabbit and let it sit on all four feet in a natural position. Pour your medicine into a teaspoon, a rubber one being best; hold it in the right hand and with the thumb and finger of the left hand press the lower lip back firmly against the teeth. Then with the right hand slip the spoon slowly into the rabbit's mouth, and gently tilt the head back and hold it long enough for the medicine to be swallowed. With a little practice this will prove very simple and will also get results.



A graphic illustration of the commercial differences between the raising of rabbits and poultry. The rabbit at the same age weighed four times as much as the chicken and cost but a trifle more to feed.

CHAPTER V.

THE MAINTENANCE OF UTILITY RABBITS.

This chapter is presented to the rabbit breeders by Mr. M. L. Thayer of Los Angeles, California, who is recognized as America's greatest student and authority on the commercial practicability of the rabbit industry.

THE merits of rabbits, in response to the increasing demand for satisfactory meat readily obtainable, have become well recognized. The certainty that rabbit meat will shortly become a staple product demands the application of more advanced methods in the manner of its production. Suggestive of the possibilities awaiting future development, this chapter is provided by the author with an acknowledgment that this offering is but elementary and incomplete, in view of the dignity of the subject, and the evidence thereof which deeper study will later on provide. The author will be grateful indeed if this chapter serves to stimulate students of the Meat Rabbit Industry to the production of more advanced presentations of this important subject.

The primary subjects to which the general principles apply, we will assume to be as follows:

1. The variety of stock.
2. The type of hutches.
3. The aims and methods of correct breeding.
4. The selection and application of feeds.
5. The records of procedure, affording exact knowledge of results.

On the first two subjects, much of importance has been decided and the requirements of those undertaking the industry may be satisfied by such in-

vestigation as the importance of the enterprise demands. The three following subjects are less understood and the importance of the information essential to best results increases practically in the order above mentioned.

Variety of Stock.

It is not the writer's intention to establish lines of classification in favor of particular varieties of rabbits, as the merits of one variety are frequently lacking in another. Too much dissatisfaction has resulted already from unsound advice offered by admirers of some one variety of rabbits presenting claims to unproven superiority of their favorites. It would seem preferable to advise each one to raise the variety most admired and to cultivate that variety to its maximum efficiency.

The experience of the writer with Belgians, Flemish and New Zealands has proven that a good strain of one variety is better than a poor strain of another. There may later on appear advanced types of meat rabbits evolved by certain cross breeding, but such possibilities should not now excite our ambition. By many years of patient endeavor our advanced breeders have provided us with standard breeds of rabbits. The writer has experimented on occasion with cross-breeds, and thus far with a resulting gladness to return to the standard article, and endorse a well known authority's opinion that "crossing rabbits is no job for a novice breeder." So little has been proven to establish the superiority of any one variety that the writer advocates for most breeders the selection of some one variety and the development thereof to the highest efficiency attainable.

Inasmuch as the merits of large types of cattle, hogs and fowls are admitted for the production of beef, pork and poultry, it seems evident that this principle

cannot be ignored in its application to Rabbitcraft. The character of one's market also demands consideration and most of us will admit the distinction between the requirements of the canning factory and the pleasure of the select retail patronage.

The practice of dressing rabbits when too young is becoming unpopular and may shortly lead to the selec-

LITTER RECORD No. <u>3</u>							HUTCH NO. <u>10</u>
							KINDLED <u>6-21-1917</u>
							LITTER OF <u>5</u>
							BUCK <u>"Prize"</u>
							BREED <u>Steel Gray</u>
DATE	WEEKS	WEIGHTS			15¢ L.W.	% PROF OR LOSS	REMARKS.
WEIGHED	AGE	TOTAL	AVERAGE	AVERAGE GAIN	COST		
7-19	4	6.75	1.35				Nursing.
7-26	5	10.00	2.00	0.65	.016	.098	512
8-2	6	12.00	2.40	0.40	.019	.060	216
8-9	7	16.00	3.20	0.80	.023	.120	422
8-16	8	17.75	3.55	0.35	.027	.052	93
8-23	9	21.75	4.35	0.80	.030	.120	300
8-30	10	23.00	4.60	0.25	.034	.038	12
9-6	11	26.00	5.20	0.60	.037	.090	143

tion of the proper variety in response to local market demands.

Type of Hutches.

Allowing the fact that the type of housing should correspond with the requirements of the breeder, we will present two of them.

The first (see page 200) serves the purpose of an easily built hutch equipment in the back yard of a city lot, housing a moderate sized herd of rabbits, providing family meat supply, market supply and sale stock for breeding. It answers the following specifications:

Compactness—requiring but twenty-four square feet of ground space for four does;

Cheapness—as the material cost is under \$1.50 per hutch;

Flexibility—being light and readily moved from place to place;

Sanitary—being readily cleaned and disinfected;

Convenient—the upper floor only requiring cleaning, drainage being to the rear and away from the feeding operations which apply at the front;

Comfortable—providing protection and affording ventilation;

Attractive—when painted in harmony with the surroundings.

The following bill of material may be 'phoned to the lumber and hardware dealers, and the construction is simple.

Hardware needed: Six pairs two-inch butts; 15



lineal feet of one-half inch wire netting, 18 inches wide; one pound six penny nails; one pound ten-penny nails and one pound shingle nails.

Lumber: Seven pieces one-half inch by six inches by sixteen feet redwood, dressed one side; nine pieces one inch by three inches by twelve feet Oregon pine, dressed one side; one piece two by four inches by sixteen feet redwood, ripped rough; two pieces one inch by four inches by sixteen feet Oregon pine

EXPENSE										1917	INCOME									
MONTH	BARLEY		ALFALFA		BRAN		MISCELLANEOUS		TOTAL	YOUNG MEAT STOCK		MATURE MEAT STOCK		BREEDING STOCK		TOTAL				
	LBS	AMT	LBS	AMT	LBS	AMT	FEED	WATER	AMOUNT	NUMBER	AMT	NUMBER	AMT	NUMBER	AMT	AMT	AMT			
JAN	160	4.00	500	5.50	240	5.40	Beef 100 Pork 120		16.80	30	55 Dr	18.50	3	36 L	3.60	6	2	14.50	34.60	
FEB	240	6.00	480	4.95	160	3.60	Cornmeal 1 Gal Medicine 1.50		16.08	15	28 Dr	8.40	4	48 L	4.95	2	3	15.00	26.36	
MAR																				
APR																				
MAY																				
JUNE																				
JULY																				
AUG																				
SEPT																				
OCT																				
NOV																				
DEC																				
TOTAL	2680	57.40	6800	68.00	3200	64.00			22.50	365	630 Dr	178.50	26	310 L	32.50	33	26	132.00	340.00	
										SUMMARY FOR YEAR 1917										
										Income 340.00										
										Expense 219.50										
										Increase in Capital 120.50 (See Inventory)										

YEARLY BALANCE SHEET

dressed one side, ripped; one piece one inch by ten inches by twelve feet, dressed one side; six pieces one inch by four inches by fourteen feet Oregon pine, matched flooring; and six pieces one inch by three inches by ten feet Oregon pine, dressed one side, and two E-ripped and finished one-half inch thick.

How to Build.

The process of building works best in the following order: Make front and rear frame by nailing the one-inch by three-inch by six-foot floor and roof stringers to the two by two corner posts. Then nail on the two by two center studs.

Set up the frames three feet apart, as shown, and brace them at the ends, temporarily, by tacking on some laths so they will stand firm and plumb. Nail on the one by two strips and one by one cleats. Next lay the floors, beginning with the lower, follow with the inside partitions and thereafter the sides and roof, completing the structure by framing, wiring and fitting the doors.

The plant of the South Main Street Rabbit Exchange, of Los Angeles (see page 203), provides housing for a possible herd of five thousand rabbits. It serves the requirements of an industry doing an exchange business and raising market supply. It comprises a series of five buildings forty-eight feet long and three buildings seventy-two feet long, each being twelve feet wide, with thirty-inch roof projection, six feet nine inches high at side wall and eight feet nine inches at ridge pole. Also on the front is a half building which may be thrown into view from the boulevard by raising a curtain and thus expose three 72-ft. tiers of hutches, with the included rabbits, to the view of the passing autoists.

Each complete building has a 7-ft. alley through the center and there are three tiers of sanitary floor hutches on each side. The buildings are six feet apart and the matched board surfaces serving to remove the droppings slant toward the alley between the buildings where all cleaning is done. Feeding and watering are done from the inside 7-ft. alley. The plant represents an investment of nearly \$7,000.00.

The location alongside one of the main thoroughfares between Los Angeles and the Harbor is unsurpassed for the purpose of inviting trade, and the proprietors are unable to supply the demand of the retail patronage thus attracted. The enterprise is a financial success.

The Aims and Methods of Correct Breeding.

If no other purpose is served by this chapter, it is hoped by the author that the dignified appreciation due our utility rabbits will hereby become better recognized, and that a certified record of extraordinary production will become an established show room specification.

It is erroneous and misleading to classify utility rabbits — those doing the highest merited work — as “culls” unequal to show room demands. In fact, show room experience is not conducive for service as the origin of utility strains.

The author is not yet prepared to admit the claims of some others that our standard specifications should be ignored in the selective breeding of highly productive rabbits. Rather he believes that high productivity is attainable without making our stock ungainly in the eyes of those whose keen appreciation has formulated our standards, even though size, weight, vigor and productiveness are our objectives.

It now seems reasonable to assume that the highly qualified breeder of productive strains of stock will be

avored with satisfactory demands for his carefully matured product. Those maintaining large herds for market supply may prefer devoting their time and hutch room to the production of pounds of meat, leaving the specialized processes of selective breeding to those worthy of such dependence. The advantages of such co-operation are undeniable.

Starting with a fairly uniform herd of one variety of stock* it is essential to learn as soon as possible the relative productive value of each doe. As one litter each is insufficient data for a comparison, a form of Litter Record is demanded that will show a comprehensive analysis of the factors of development. The form illustrated on page 201 has proven well adapted to this purpose and first two columns are self-explanatory. The third column shows the weight of the whole litter, which, divided by the number recorded in the heading, gives the average weight of each specimen for column four. Subtracting therefrom the average weight obtained the week previous gives the average gain for the past week shown in column five. The average weekly feed cost, as shown in column six, is derived from the Weight Chart, as will be explained later on. The week's income, shown in column seven, is the product of the average weekly gain into the live weight price, shown at the head of the column. Column eight shows the profit or loss percentage obtained by dividing the week's profit or loss by the cost, and serves to indicate the period when the rate of gain is no longer a source of profit. The remarks column should show the various data pertaining to the doe's performance, growth, color, type, etc., of the litter, feed schedule changes and, when specimens are dressed, the percentage of dressed meat to the live

* The herd used as basis of this presentation is of 12-lb. Flemish.

weight. After the litter is entirely disposed of or matured, the essential facts of its lineage and development thus become available record for study and comparison. Thereby unwise procedures may be much reduced and those more fortunate repeated.

To find the profit percentage to date from time litter was weaned and the doe's expense gotten rid of, add the items in cost and income columns and divide the difference between these sums by the cost.

The purpose of the Weight Chart shown on page 220 is to illustrate graphically the weight development as determined by the Litter Record. The weight increase is described by the vertical, and the age by the horizontal graduations. For development study it is unimportant to compare weights under six weeks of age, as litter weights are not representative earlier. Then and thereafter weekly litter weights are obtained and the averages shown on column four of the Litter Record are platted on the Weight Chart. For this process the decimal system is assumed.

Those unfamiliar with such work will readily comprehend this method by comparing the Litter Record weights with the Weight Chart diagram and noting that the lines of progress pass through the points where recorded weight and age intersect.

Referring to the Litter Record, page 202, we find the average weight of Litter Record No. 3 at six weeks and after to be 2.40, 3.20, 3.55, 4.60, etc., that same are correspondingly platted on the Weight Chart and lines drawn connecting the points. It will be noticed that the litter grew rapidly while with the doe. dropped a little after weaning, picked up on the ninth week when hot weather and a lot of rather poor alfalfa caused a

drop on the tenth, after which the gain was again favorable. It will be observed that four litters are shown on the Weight Chart illustration. Litters No. 1 and No. 2 were of seven each, while No. 3 and No. 4 were of five only which served to explain the relative average early growth of large and small litters. Furthermore, Litter No. 4 was off-color, proving that the parents were ill-mated for color production, and as the weight also was not remarkable, the whole litter went to the pot at eight weeks. Further than explaining the relative growths of many litters at a glance, the whole may be compared to the standard weight for the variety of stock under observation by plating the standard weight on the chart and fixing same with an ink line. One of the results of the introduction of the graphic chart will doubtless be the better formulation of our weight standards with respect to relative ages.

In explanation of the cost figures given in column six of the Litter Record, reference is made to feeding cost data shown on page 204. The daily feeding cost, with the schedule specified, of a mature rabbit is \$0.0092, which fixes the weekly cost at \$0.064. The writer has determined that a litter of six youngsters at six weeks of age apart from the doe will require very nearly two normal feeds; also that at 18 weeks old the growing youngsters will require normal, mature feed. Therefore, at six weeks' age the feed cost is one-third normal, or \$0.021, while at 18 weeks it is normal, or \$0.064. Now by plating these values on the Weight Chart at the ages of six and eighteen weeks, striking a line between them and assuming the vertical graduations to represent cents instead of pounds, we obtain a graphic method of determining weekly feed cost at any period. For example, note that the feed cost from six to seven weeks is \$0.023, from seven to eight weeks is \$0.026 (very nearly), from fourteen to fifteen weeks is \$0.052, etc. Of course, it is evident that these val-

ues are suggestive and correspond with the feeding schedule and feed cost prices, pertaining to the example presented. Students applying the following methods of estimating will experience little difficulty in defining the values corresponding to their feeding practice. The values of several performances by a certain doe should enable one to establish her relative productiveness when compared with similar records of other does. A consistent development of the best and elimination of the poorest producers should result if the evidence afforded by Litter Record and Weight Chart govern one's procedure. It is hoped for Rabbitcraft that strains of stock will appear in response to these methods to dominate the industry by virtue of the fact that their highest credential is useful accomplishment.

The Selection and Application of Feeds.

The practice of pasturing herds of domestic rabbits in large enclosures has not become common, and such practice is not anticipated at the present time. The use of green feeds, other than readily obtained wild plants and garden wastes, requires that special industry be applied to their cultivation, and this time factor added to the other expenses of maintenance. Only in rare cases of studied maintenance methods do we observe such procedure, which is beyond all question wise and practical.

The writer has determined that nearly all garden wastes that have not been sprayed or powdered with poisonous insecticides may be profitably fed to rabbits and greatly appreciated by them. A good lawn of carefully graded blue grass and white clover is worth a great deal toward maintaining a herd of rabbits, if the clippings are fed in proper condition and quality.

If fed green or partly cured it must be known absolutely that it has not been permitted to stand in heaps or receptacles until heated and poisoned by the preliminary process of decay. The writer does not hesitate to devote sufficient of these lines to an understanding of this prominent matter.

The practice of taking care of our lawn clippings and garden waste until fed to our stock may be troublesome compared with storing these in baskets or boxed until used up. If such green feed is spread out in a manner to prevent heating and thus cared for until fed, its use is saving and beneficial when given in proper quantities. Its cheapness or convenience should never influence the feeder to overload his stock with the quantity of green feed which they will frequently devour, suffering digestive disturbances in consequence.*

It is the writer's purpose to encourage the more general use of green stuff. We have discovered feeding schedules of hay and grain, the expense of which could have been reduced 30 per cent by the use of green feed and the stock benefited. We have taken exhausted, sore-footed does to the "hospital yard," put them on green food diet of chicory, kale, lawn grass, etc., with enough coarse hay for roughage, and quickly restored them to working order.

In general practice we endorse the serving of two or three good tastes of green feed per week at regular feeding time, omitting the heavy grain feed on such occasions.

The general schedule of feeds applying to hutch-fed rabbits includes most of those commonly applied to

* Greens should be fed with great caution to your rabbits under three months old.

other domestic animals in the same locality. These vary accordingly from the ration of oats and corn with red-top timothy or clover hay of the east, to the rolled barley and alfalfa ration of the Pacific Coast. Therefore, the balance of this ration is a local problem and knowledge equal thereto must be derived from some wide source of information. Although examples of fairly acceptable practice are frequent in most locations where rabbits are popular, the feeding methods followed by advanced stockmen indicate our needs and also the literature to satisfy them. It is evident that the development of excellence in our utility stock will be accompanied by advancement in our knowledge of scientific feeding. Lacking the authority of recorded experiences of test feeding applied to rabbits, we must be guided for the present by similar authority applied to standard live stock. As a source of information concerning feed values and suggestions regarding practical methods of test feeding, we recommend "Feeds and Feeding," by Henry and Morrison. It is confidently expected that our students of rabbit feeding will profit by studying this and similar works and, guided thereby, provide our industry with such examples of test feeding that a great deal of our speculation of today will be supplanted by proven facts of tomorrow.

Whatever materials constitute our feeding schedule, and wherever the work is accomplished, a comprehensive system of computing the cost of our product is needful. With the market for rabbit meat enlarging to the capacity of the industry, with canning factories demanding raw material, it is necessary that those providing the supply understand its cost of production. In the following example it will be noted that several of the factors are assumed averages. These are in nowise arbitrary, being in correspondence with the practice of the writer and the capacity

of his strain of stock and proven approximately correct by many trials. Elsewhere applied, certain changes are allowable in correspondence with the practice in vogue.

The important factors to be derived are the unit values of quantity and cost applying to one feed for one mature rabbit. If the feeding is done twice daily it is most convenient for practice to estimate the "daily normal feed" units of quantity and cost. The units of quantity remain fairly constant, while the units of cost vary, corresponding with feed cost prices from one season to another. The herd of 12-lb. stock herein discussed produces litters that average 10 lbs. dressed at eight weeks of age. One doe from time of mating until young are two weeks old, or for 44 days, will require "normal feed." For the following four weeks (28 days) until weaning time, our experiments have proven that doe and litter require average double "normal feed." During the two following weeks (14 days), or from time of weaning until eight weeks old, the litter, now separated from the doe, require double "normal feed." During an average resting time of five days, after being separated from her litter, until mated, the doe requires "normal feed." Therefore, to produce an average litter requires 44 plus 56 plus 28 plus 6, equals 133 "normal daily feeds."

To ascertain the quantity and cost units of a "normal daily feed," we make a canvas of our herd and add up the sum of our daily normal feeds on the basis of the values heretofore explained:

11 does at normal feed.....	11
7 does and litter at double normal feed	14
16 mature sale stock at normal feed..	16
4 buck sale stock at normal feed.....	4

* California Poultry News, September, 1917.

6 litters young stock at double feed.. 12

Total normal feeds required... 57

By weighing our feeds for one day we find that we are feeding in the morning 9 lbs. alfalfa at \$23 per ton and $7\frac{1}{2}$ lbs. barley at \$2.45 per cwt.

At night 9 lbs. alfalfa and a mash composed of 4 lbs. bran at \$2.30 per cwt., and 3 lbs. beet pulp at \$1.70 per cwt.

Cost of normal morning feed:

9 divided by 57 equals 0.158 lbs. alfalfa,	
at \$1.15 per cwt.....	.0018
$7\frac{1}{2}$ divided by 57 equals 0.127 lbs. barley	
at \$2.45 per cwt.....	.0031
	<hr/>
	.0049

Cost of normal night feed:

9 divided by 57 equals 0.158 lbs. alfalfa	
at \$1.15 per cwt.....	.0018
4 divided by 57 equals 0.070 lbs. bran	
at \$2.30 per cwt.....	.0016
3 divided by 57 equals 0.053 lbs. beet	
pulp at \$1.70 per cwt.....	.0009
	<hr/>
	.0043

Total cost of normal daily feed.... .0092

Returning to our factor of time to produce a litter, we have:

133 feeds at .0092.....	\$1.22
Add for doe and plant.....	.32
	<hr/>

Cost of litter..... \$1.54

The charge for buck service is so small as to be properly ignored, particularly in cases where services are sold.

The doe and plant charge may be arrived at as per the following example:

Disinfectant and medicine \$5 per year	
for 40 hutches, annual charge....	\$0.125

Hutch and equipment at \$3 for life of 20 years, annual charge.....	.150
Doe (average value \$4) for 3 years' service, annual charge.....	1.333
<hr/>	
Annual charge per hutch.....	\$1.608
Charge per litter (5 litters per yr.)....	.32

With the stock above described, litters of five, six or seven youngsters will dress an average of 10 lbs. per litter at 8 weeks.

Given a market price of 30c dressed, the result is:

Sold 10 lbs. dressed meat at 30c.....	\$3.00
Raised 10 lbs. dressed meat at 1.54c....	1.54
<hr/>	
Profit	\$1.46

If above estimate is made monthly and the units of cost recorded, it will keep one in very close touch with the economic status of the feeding schedule and able to control its balance without the least speculation, if any change of diet is advisable. Also a few experiments to determine the relative number of normal feeds will enable one to estimate the cost to produce a rabbit of any age, mature or young. Furthermore, whenever a certain ration is found convenient or otherwise advisable, its relative cost and results should be estimated and made a matter of record.

Records for Procedure.

It is not uncommon to find many who take more than a careless interest in rabbit raising, yet make no effort to record the details of their experience. As a consequence, they are uncertain regarding even those of most importance to success and indeed are in nowise certain if they really are successful from a business standpoint. The task of analyzing all of the processes

of maintaining rabbits is not recommended for every one, but it seems reasonable that most of those at all interested should desire a fairly close understanding of the results of their work. In fact, the most interesting of the writer's experiences have relation to his record book. When entertaining visitors to his rabbitry the record book is often evidence and has many times provided the argument effecting the sale of stock. Such questions as—"Do you find rabbits profitable?" "What does it cost to feed them?" "How many will a doe raise?" "What is the lineage of that specimen?" "How many do you sell in a year?" "Well, now, what is your actual yearly profit per doe on an average?" etc., etc. Now, as one's rabbit enterprise becomes well known, others than disinterested folk will put these questions and be influenced by one's replies. There are three ways of answering them. The most harmful answer is based on speculation. A better answer is "I don't know." The best answer is a well-kept book of records. When pedigrees are mentioned the record book is the final argument, as dependence upon memory is accepted with many reservations. It is allowed that record keeping may become irksome at times, nevertheless no other department of Rabbitcraft pays higher returns.

The records illustrated may be included in one book unless the herd is a large one. A convenient size is afforded by the ordinary school composition book, with pages 8 inches in height and $6\frac{1}{2}$ inches in width. These pages may be ruled to suit the record kept thereon. A double page is best adapted for each record. The hutch record should show lineage of doe and litter record on the left-hand page and "remarks" on the right, with one double page to each hutch. The Expense and Income Account may show Expense on the left and Income on the right, using one or more lines per month as required. The yearly balance sheet

HUTCH No. 5.

[illegible]

as illustrated is an excellent form for the purpose. The scope and completeness of each record will be found generally satisfactory.

It will be noted that the hutch record covers several years' performance for one doe on a double page. The Expense and Income balance will require but one or two double pages per year, while the yearly balance record is nicely shown on one double page. Beyond providing for the above, the book should contain a few additional final pages on which may be compiled Weight Statistics, Feeding Statistics, General Notes, etc. Among the last should be shown pedigrees of all bucks put in service and a few remarks describing their type, weight and performance record.

Time Factors.

The time factor of maintenance has been purposely ignored by the writer as too uncertain for specific treatment. At the February (1917) meeting of the Southern California Rabbit and Pet Stock Association, the writer presented a paper on "Feeding Market Stock at a Profit," in which the time factor was treated as follows:

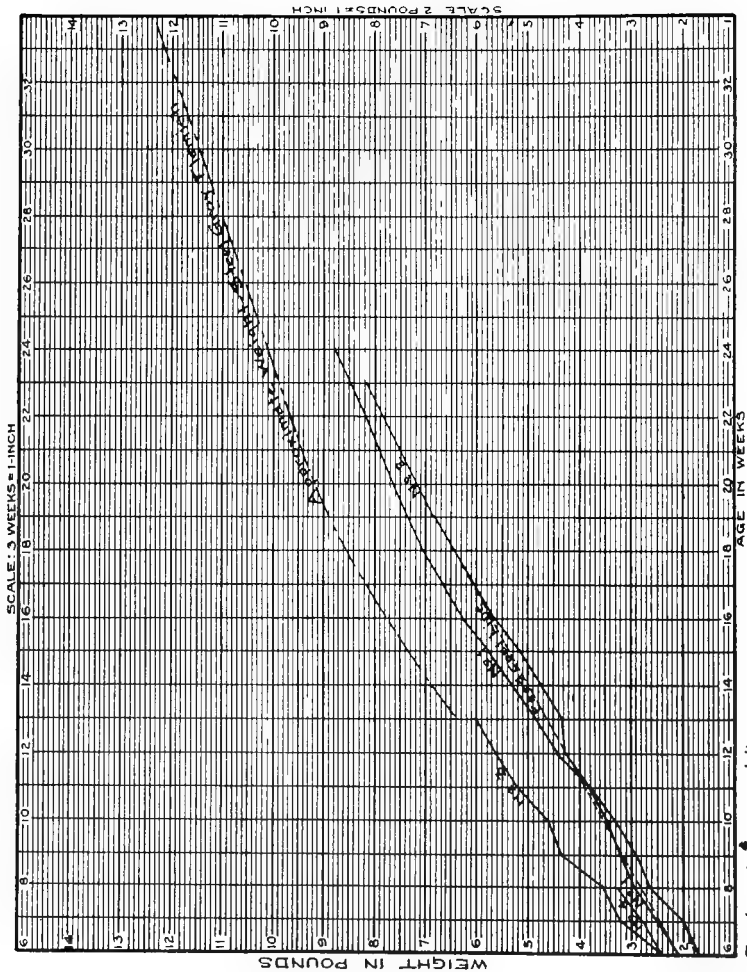
"The most difficult item of all in the matter of accounting is the factor of time. No two rabbit raisers employ similar methods of distribution of the food materials. Naturally as the herd increases in numbers its labor cost per hutch grows less.

"Such equipment as trucks, push-carts, wheel-barrows, etc., suitable to a large rabbitry are too elaborate for a small one, where the materials are distributed by means of buckets or boxes equipped with bail handles. It would, therefore, seem evident that the one-third or one-half of a minute per hutch required for feeding a large, well-equipped plant is too low a

labor charge or the small and more expensive type which requires a minute per hutch. Now, the rabbit family occupying a hutch requires 730 feedings per year. If each requires a minute of time valued at 25 cents per hour, the yearly cost would be a little over \$3.00. Or again, if the yearly profit from this same hutch is \$5.00, the feeder is receiving a little better than 40 cents per hour for his twelve hours' labor. Now there are many plants where the yearly labor per hutch is less than 12 hours, including all cleaning needful, and the owners are making very good wages. Therefore, it is evident that where such does not follow, the owner should improve upon the methods in use."

Conclusion

It is not expected or desired by the writer that this presentation be accepted as final authority, as his experience in Rabbitcraft is unequal to meriting such a claim. Among his friends in Rabbitcraft are many who desire to study out its details, but lack the methods of orderly procedure needful to such an undertaking. Such methods are in correspondence with the writer's professional calling and he submits their fruitage while cheerfully awaiting the appearance of something better.



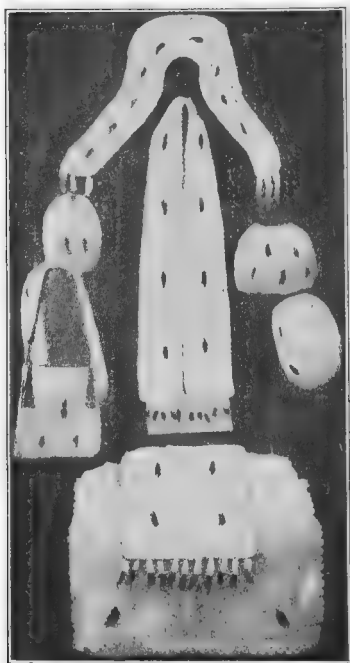
WEIGHT CHART.

Feed cost = 0.0092 daily
 . . = 0.0644 weekly.





ON THIS PAGE AND THE FOLLOWING, INTERIOR AND EXTERIOR VIEWS OF THE
CELEBRATED "DOC" SHORT'S RABBITRY ARE PRESENTED.
LOCATED, COLUMBUS, OHIO.



FUR PIECES MADE FROM HIMALAYAN POLISH
THE CALIFORNIA FUR RABBIT

